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W D Koenig

1980 - 1981

Melanerpes formicivorus

1980 Walter D. Koenig

Melanerpes formicivorus

Fort Hunter Liggett, ~5 mi. N. Jolon, Monterey Co., Calif.

12 January Today, despite fair-poor weather conditions (rain fell most of the day), Ron Mumme, Larry Hawks, Nancy Joste, and I all traipsed out to Hunter Liggett to make a brief survey of the acorn and woodpecker situation there. We arrived in the area at 1130 and spent approximately 3-3½ hours checking out several areas. Basically, we looked for 1) signs of a good acorn crop, i.e. acorns on the ground, and 2) the state of granaries, i.e. what proportion of granaries appeared to be unused this winter. This latter aspect presumably gives an indication of how large the population is here, though I do not have any baseline with which to compare my figures.

The 3 areas we checked were 1) an area near Hay Camp Road, ~~2) an area on Hay Camp Rd out near San Miguel to Rd, and~~ 2) an area on the San Miguel to Loop several miles down from Hay Camp Rd, and 3) Stony Valley. A map with a general idea of where these places are will hopefully be found on the back. The entire area was quite wet!

As for the acorn crop, it's clear that it was generally very good-excellent in the areas we checked. Quite a few Valley Oaks and at least a few Blue Oaks ~~were~~ had litterally thousands of acorns still littering the ground below them. I didn't note any acorns still in the trees, but it's very likely that some Live Oaks still did have some acorns. In granaries I noted ~~dd~~ acorns of all 3 of these species. Valley Oaks were definitely in excellent form this year here, and a fair proportion of trees had many acorns below them.

Fort Hunter Liggett, 13 Jan. 1980

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Fort Hunter Liggett, Monterey Co., Calif.

(12 January) Thus, I think it's highly likely that the acorn crop - at least of the 3 commoner species here - was excellent, just as it was at Hastings.

As for the 2nd aspect, what we did was to walk around and simply count the number of granaries that did/did not have acorns stored in them (plus a few which seemed to have far fewer stores than holes). I more or less arbitrarily ~~created~~ lumped granaries that were so close together that they probably belonged to the same group (not easily done here since the density of granaries is so tremendous). The total final count was 27 granaries with lots of stores, 3 with only a few (when it looked as though there was room for lots more), and 25 that appeared to be completely empty. At least a few of the granaries were within a stone's throw of a Valley Oak whose acorn crop had been very heavy. I don't really think that this proportion of empty granaries accurately reflects the proportion of empty territories out here, but I do think that more granaries were empty than should have been if the area had been "full" of groups. I might mention that most of the granaries that did have stores were quite full - some phenomenally so (god this is good Wicker habitat!). I do think that there are some empty territories here, as suggested by the empty granaries, again just like the present situation at Hastings.

Finally, we did come across several birds hawking and sitting around. It was raining most of the time, so it's hard

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Fort Hunter Liggett, Monterey Co., Calif.

(12 January) to say much about the number of birds around. They were not overly common, however; I certainly saw nowhere near as many birds as I've seen here on visits in the winter in the past.

Thus, in conclusion, it appears as though the general situation here at Hunter Liggett is fully in concordance with the situation at Hastings - an excellent acorn crop with a small population of Acorn Woodpeckers - too small to take full advantage of the unusual circumstances (if it were otherwise I would of course have been expecting the "surplus" to be moving into the poorer areas such as Hastings, which they certainly haven't been doing!).

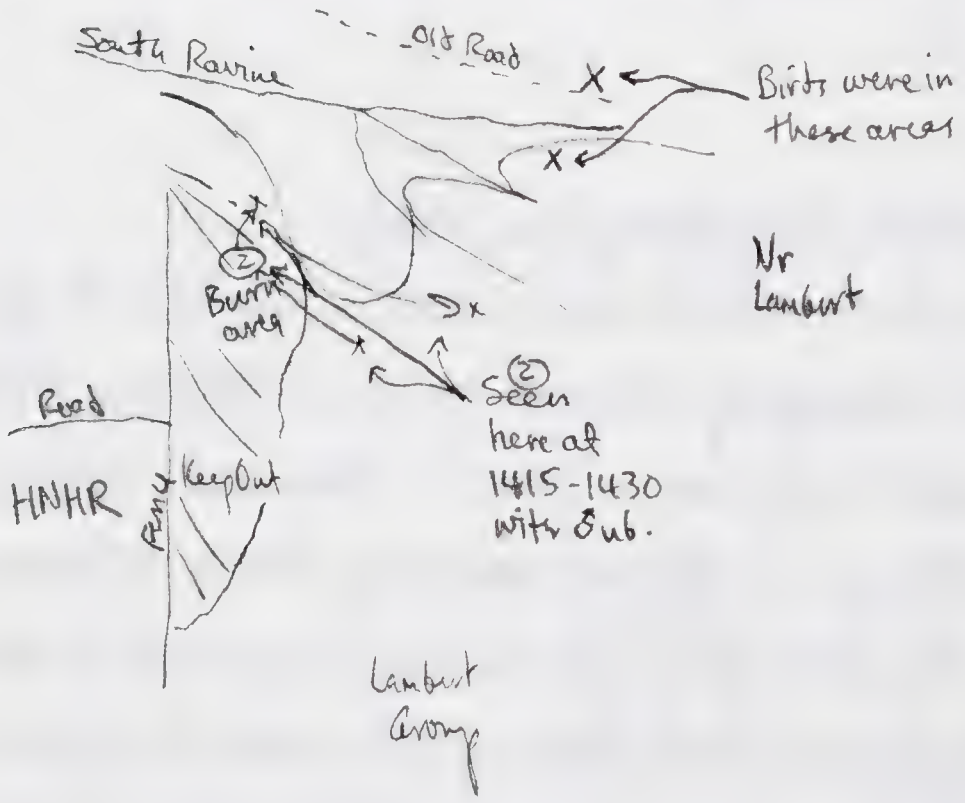
Hastings Reservation, Monterey Co., Calif.

21 January 1315. Up on the Arnold I ran across a banded ♀ plus at least one other bird hanging around an area between Lambert, A3, and Near Lambert (see map on back). They were hawking, picking acorns, and sitting; I did not note any stores in the area. The bands of the ♀ were: ♀ LP-Red-LPink (LP or Or/ don't know whether LP-Red/LP or LP/Red-LP) My first thought was that these 2 birds were the former A3 birds, and indeed, the ♀ is close to being ♀207. But I had a fairly decent look, and it really appeared to be Lght/Red/Lght, not a different order. In any case, these were apparently not the Lambert birds for sure. I wouldn't rule out the A3 birds, as she certainly doesn't seem to fit anyone else (who might be) in the area.

1415. Found her again, this time with an unbanded ♂, at point ②

21 January

Banded ♀ + 1 other bird on Lambert's



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Hastings Reservation, Monterey Co., Calif

(21 January) This time I got a look at her right leg, which was M/LP-(Mauve?). This makes her ♀ M/LP-(Mauve?) LP/Red-LP or ♀ M/LP-(Mauve?) LP-Red/LP. I still can't identify her offhand, but she's not ♀207. She was in the edge of the burned area preening, and picking acorns, which she pecked into right away. Apparently these 2 birds may actually be living here, but if so, I have no idea where their granary (if they are using one) is.

1440. This time I nailed her for sure: ♀ M/LP-DG LP-DG/LP-DG (the only band I didn't see very well is upper right). She's ♀520, the bird (*♀520) I banded at the "revolution" at Upper Arnold 2 on 26 August 1979.

26 January Today all the Seabird-types from the PSG meetings were here in the morning, but afterwards Ron and I managed to make it up Bison Oak Hill to look for birds. At P.O. Hill #1 [Ron saw ♂377] Ron saw one of the banded ♂♂, an apparently unbanded ♀, and a 3rd bird. Otherwise it was all unbanded birds, especially ♀♀. Between us we probably saw 15-20 birds, (some of whom could have been repeats) all of whom were unbanded. They were distributed around all over, but something was going on - there were some chases and a pod of birds roving around up near the top that appeared to be up to no good. Once again, most of the activity seemed to involve ♀♀. As for granaries and acorns, things are in good shape up here as elsewhere. Most of the potential storage sites are quite full of stores. All in all, though, it was a lot of work for relatively little information.

31 January 900. Back over on Lambert's I wandered around and noted

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Hastings Reservation, Monterey Co. Calif.

(31 January) lots of stores at both Near Lambert and ~~at~~ in the granary just over the knoll from Bar-b-q. There were also numerous birds around (inc. 2 at Bar-b-q, which lost most of its granary last month) but all were very skittish and impossible to pin down.

2 February 1500. Over at Warp 5 along the road there are indeed stored acorns - probably several hundred. Am now watching just to see if I can nab anyone.

1505. 0♂[?] here! Flew off before I could get a decent look.

1530. Noone coming back. Leaving, but I do want to find out who lives here.

26 February 1530. Over at Near Lambert, where there was some activity earlier with at least 5 birds in the granary together.

1545. 0♀ ub.

1600. Leaving. Several birds here, mostly hiding from me. Lots of stores here.

San Geronimo, Marin Co., Calif.

18 March This afternoon Pam and I went to visit Jane Tyler, the woman who has the Acorn Woodpeckers with the yellow crowns. Several new developments have taken place here since we came in 1977: most interestingly, one of the yellow-crowned birds (a ♀) has apparently dispersed down to the local Post Office, about ½ mile away and down the hill from the Tyler's house. At her feeder were apparently 2 yellows until recently and at least 3 during much of the winter, but one of these disappeared awhile back and a second (a ♂) had a growth in or on its bill which made it very

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San Geronimo, Marin Co., Calif.

(18 March) difficult for him to close his mouth; he disappeared about a week ago after several unsuccessful attempts by Ms. Tyler to catch him. This left only 1 yellow, a ♀, who was here today along with at least 2 normal ♀♀ and several ♂♂. I brought 2 of the Chickadee traps, which we baited & and set. One Acorn Woodpecker, a normal ♂, went in and got caught right away. I measured and banded him as follows:

USFWS #812-35986

♂ (tail spots); wt = 80.5 gm; WC: 132 mm; Bill L = 31.6 mm.

Bands: Red / M
Red / Red

After this the wickers were shy and no others got themselves caught, but I left her the traps along with some bands and instructions so with luck she may be able to get everyone here eventually.

I also asked her about the origin of the yellows again. Apparently they saw none, despite having fed them for some time, until 28 May 1975, when all of a sudden 2 or 3 starting coming to the feeder all at once. Then they continued to be common later on as ~~the~~ some of the babies produced by this group were yellows as well. This doesn't really clear up the mystery of their origin, but it does sound as though the "invasion" of ~~babies~~ yellows on 28 May were probably newly-fledged young. Possibly one of their parents had the gene but it wasn't expressed: possible only if it's dominant, I guess! Jane also said something

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San Geronimo, Marin Co., Calif.

(18 March) about Bob Stewart having seen a Yellow-crowned Acorn Woodpecker up in Point Reyes or some such prior to 1975; I'll have to ask him about that next time I run into him.

Jane Tyler's house, by the way, is at the very top of the hill in San Geronimo at the end of Tamarck. To get there you turn left off Sir Francis Drake after the Golf course, right on Meadow Way to Sylvester; Sylvester then turns into Tamarack which then goes up to the top. This area is beautiful Douglas fir forest.

Hastings Reservation, Monterey Co., Calif.

9 April 1700. Over at Blontwo there are 2 birds making some kind of ruckus, suggesting that there may indeed be a group here.

12 April 825. There are definitely ≥2 birds over at Blontwo again.

14 April 815. An Acorn W. stopped by briefly and ~~kan~~ kanit-ed several times right in front of Red House, then flew off up the hill toward Lamb's.

16 May 900. Finally made it up to Poison Oak Hill. Right away I flushed a bird from a hole up at POHill #1, where there are 4 eggs, incubated. This is in the same Black Oak where there was a nest a few years ago, but in a different hole.

After checking the hole in the canyon below the Revolution territory I went down to the territory where I banded several babies a few years ago. This time they again had babies, again in the same hole up in the same Blue Oak. With some difficulty, however;

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Hastings Reservation Monterey Co. Calif (Poison Oak Hill)

(16 May) I climbed it and got them - 3 - who were ~20 days old. I weighed, measured, and banded them, and they are now #547-549 (see map on back).

yes

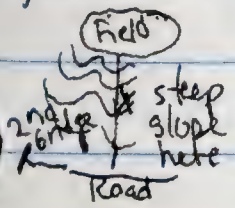
If this has a name from 1977 it's probably POHill #3. The group definitely does have acorns remaining in their granary.

1300. Walked slowly up the tongue back toward the Revolution territory. On the way, probably not more than 75m from the last group, was another granary with acorns (a Valley Oak). Looking around, I found the nest, went up, opened it, and found 5 more babies (~15 days old); their remiges were just breaking through their sheaths and their eyes were well opened. I banded and weighed them as #550-554. This tree has Poison Oak growing up it; it's not huge but is substantial (DBH=98.5cm). See map on back for some idea where I am. This can be called POHill #4 for future reference.

After this I walked on up (and I mean up!) to the Revolution Territory itself. I'd hoped to find a nest here - there are lots of nice-looking holes and lots of acorns - but I didn't have any luck.

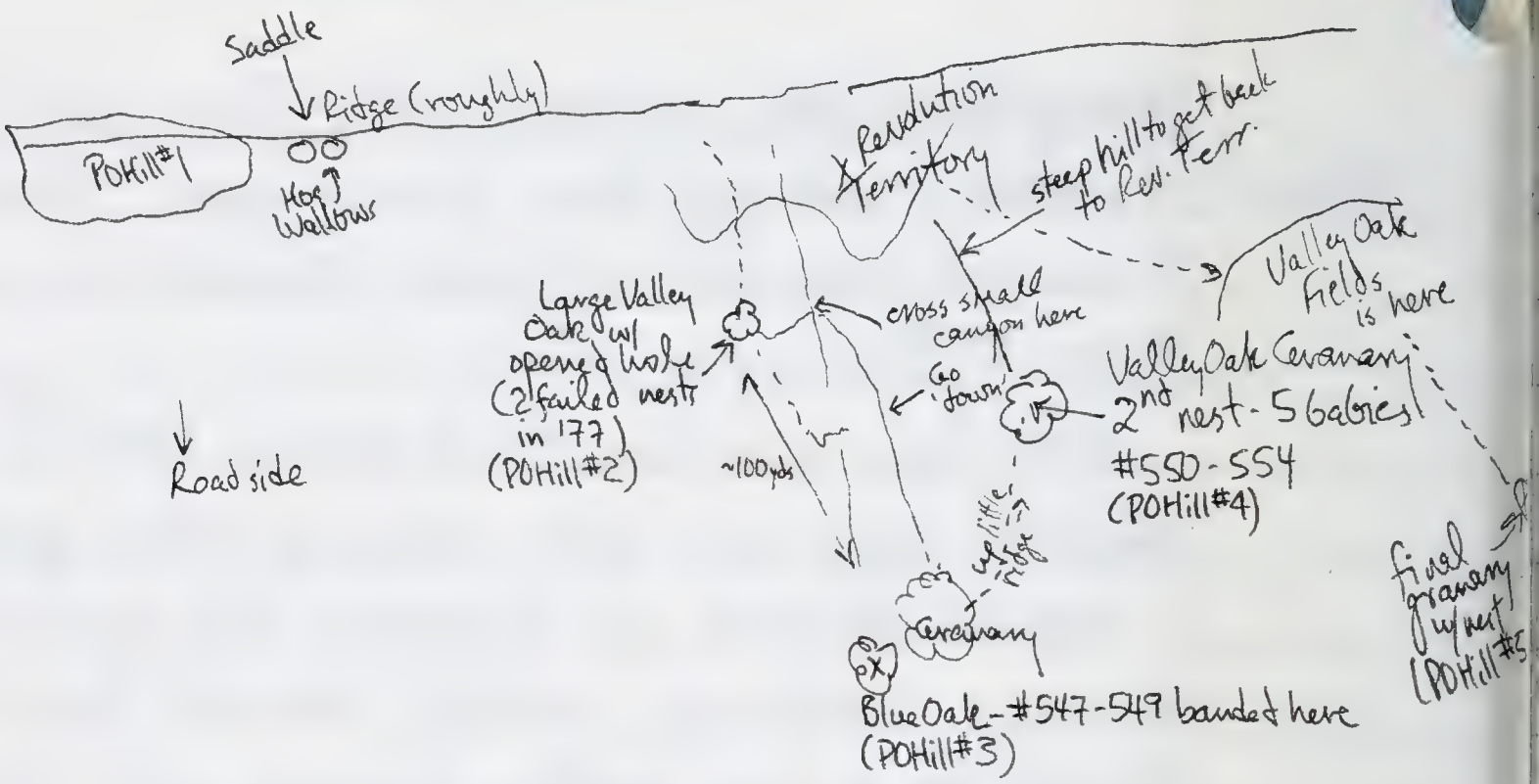
Finally, I walked down to "Valley Oak field" where I saw a few birds but flunked again as far as ~~nest~~ holes. On the way down from there I went by a dead granary with lots of acorns and a nest with babies, but by that time I was far too pooped to do anything but stumble on back home. Also I'll need at least a short rope ladder to get up here.

This is a rather imposing (stark) tree, just down from VO Field



17 May This afternoon I walked over across Blomquists' to Corral Viejo Canyon. First I looked around at

16 May - Poison Oak Hill



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Hastings Reservation, Monterey Co., Calif.

(17 May) BLOMTWO, where I found several holes and watched 2 birds hawking and preening. But, even though I even climbed up to check several holes that looked good, I found nothing that I could confirm as a nest. Nonetheless, there are birds here, acorns here, and surely a nest, so I'll just have to try again.

Over at Corral Viejo, I first checked CVC#1, where a bird was in the hole in the large Valley Oak at the fence that I opened in 1978 (the nest was apparently predated that time). Climbing up, I found 5 eggs, opaque and incubated.

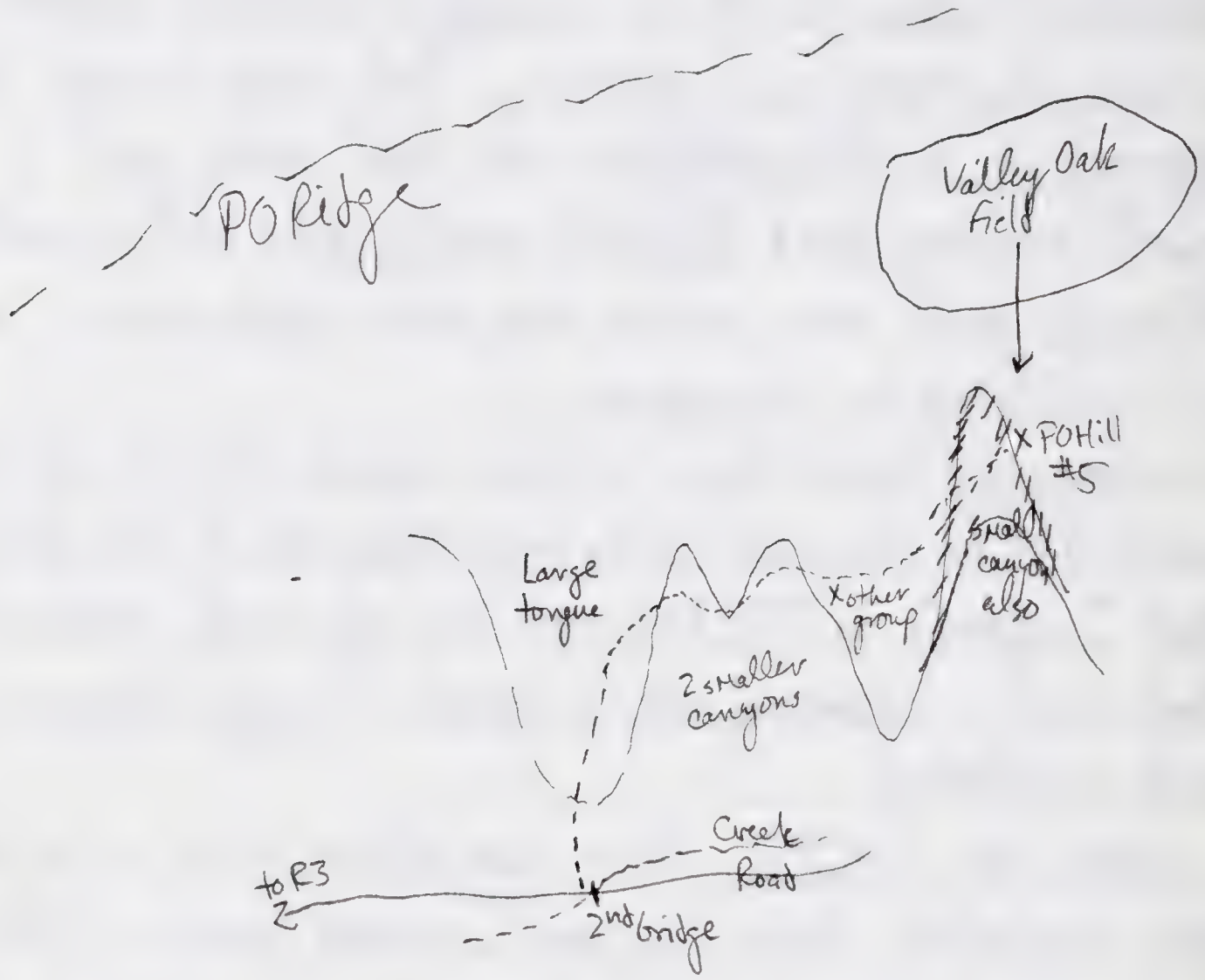
Next, at CVC#2, there was also a bird in a hole, one immediately below the one I opened here in 1978. I also climbed up to it and found 1 newly hatched baby plus one egg which was pipping for a suspiciously low clutch of 2 (making me guess that this could be a 2nd nest already). In any case, it's yet another couple of babies to get in a few weeks.

Finally, I checked the holes in the large Valley Oaks toward Hastings (CVC#3?) just out from Corral Viejo but didn't see any sure sign of anything there.

18 May late this afternoon I climbed up Poison Oak Hill (from the 2nd bridge) to get the 4th nest which I found on the 16th. It had 3 babies (~12 days old), now #558-560, and will be referred to a POHill#5 (see map on back). I also found another group I hadn't known about on the way up, but I was unsuccessful at finding a nest there.

18 May

POHill #5 (see also map on back of p.8)



If you walk up the tongue from the 2nd bridge, go up a fair ways, then turn right, go through 2 smaller canyons, and on the side of the slope will be a group (this is the 'new' group I found) POHill #5 is in a large, conspicuous, Valley Oak snag located just up and over from that group. Coming down from VO Field, if you head straight down from the left-center (on the above map) you can't miss it. It's right along the way down
POHill is ~ 50m (?) (± 25m) from the other group.
Both are about 2/3 of the way to VO Field from the Road.

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Hastings Reservation, Monterey Co., Calif

4 June Ron opened and checked BLOMTWO today, where he and I had seen a bird looking out of a hole. There were 4 eggs.

6 June 1130. Went to POISON OAK HILL #1 to band the babies, of whom there were 3 (about 18 days old, I'd guess). They are now #595-597 (there were 5 eggs here when I first came up). This group does still have acorns, also.

7 June 1200. First went to Coral Viejo Canyon #1 to band, finding only 1 baby remaining from the 5 eggs here last time. He was rather younger than I'd expected, but he was banded anyway as #598. Next I checked CVC #2 (where there had been 2 hatchlings last time) but there was no nothing in the nest at all.

1215. Finally, on the way back home, I went up to check the nest at BLOMTWO, where there is still a bird incubating 4 eggs (see 4 June).

19 June 1530. Checked BLOMTWO, finding the nest completely empty (no eggs, eggshells, or babies).

25 August Back briefly after going to the ADKs, Ron and I walked up POISON OAK HILL to check on the damage wrought by the fire on 10 August while we were gone. All in all, things are pretty bad - a lot of old granaries up here went up in smoke. Of those that we specifically checked:

1) POHill #1: nest holes and granaries ok
2) POHill #2: nest tree not checked
3) POHill #3: both granary and nest tree totally destroyed
4) POHill #4: tree ok; 1980 nest hole taken over by honey bees
5) POHill #5: granary/nest tree (1980) a total loss.
6) Revolution territory: main granary totally gone.

All in all, the place is not looking its best. The fire pretty

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Hastings Reservation, Monterey Co., Calif

(25 August) much wiped out a large proportion of the snags, not to mention the brush, downed limbs, and ground cover. At the moment the acorn crop appears to be doing pretty well, so some of the birds up here may be able to manage for awhile. But on the whole, the carrying capacity of the area for AW must have been cut at least in half as far as granary and storage area go.

17 November On the way back from 1800 today I found a set of AW feathers - primaries, 2°, a few rectrices - along the road right in from the 2nd crossing. There were enough scattered around to prove that someone bit the dust near here, but I have no idea who it was.

2 December Jim Griffin mentioned the presence of a fair amount of Wicker activity at PO Hill #1, so I went up there this afternoon just to see what's up. There was no activity at all, but there were a fair number of stored acorns, mostly Black Oaks (the granary area here was one of the few left in fair shape by the fire).

1425 ♂ M/Wh-(Maize?) Or-Wh/Or in granary.

According to my records for P.O. Hill, this is most likely to be ♂ M/White Red-Tan/Red #550 who was 1 of 5 banded at P.O. Hill #4! (quite a ways away!) Perhaps this area does need some serious watching!

4 December 1620. No sign of stores or birds at Blomtwo.

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Chongo — Hastings Reservation

28 January — 1245. No stores here or sign of any birds in passing.

2 May — 800. Came by here, but saw no sign of life: no stores, no birds, and noone looking out of any holes.

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Buckeye — Hastings Reservation

8 January — Purge: ♀373. Seen by L. Hanks here on 14 Apr., 28 Apr., 4 May, and 19 May 1979. Never seen at the nest, which was found on 25 June, and has disappeared since. ∴ → Disappeared about 6 June ± 2 weeks. It's still not clear whether this bird bred here this year (and then disappeared) or whether ♀483 did. The latter is still present, but only was seen at the nest once - when she was immediately pecked by ♂234 (27 June - L. Hanks).

28 January — 1030. Watching from hide. Lots of stores here.
1121. ① ♂ LB WR/WH-DP #234 arrived in granary. Left right away.
1145. ② ♂ DB Might #252 came and stored a small (= Live oak) acorn in a small supplementary granary nearby.
1155. ③ ♂ DB-or/DB-or #424 in small granary storing an acorn also.
1200. Going to move hide for next time.

3 February — 1235. Watching.
1250. ① ♂ WH RA/(Kids) ♀ #504 parrit-cutting in the trees off to the side here.
1335. Heading down. The ♀ + remains a problem, but others are here.

11 April — Thought I'd finally figured out where these birds are roosting, but after setting up an ambush there they prompting led roosting elsewhere.

13 April — Last night at the granary I was pretty sure that 4 birds roosted - complete with some pre-roost mounting, a fair amount of rigamarole, etc. (The hole was not the low one, and one of the 4 roosted in yet a 3rd hole after the birds made such a ruckus about his attempt to enter the hole that he went

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Buckeye Hastings Reservation

(13 April) elsewhere). Meanwhile, Gwen was watching the other hole where the ambush was set (up the hill) and saw one lone bird roost. This rather piqued my interest, so I went ahead and ambushed this morning (450). Sure enough, as I'd hoped, it was the 1st yr ♂504 off by himself roosting in this upper tree while all the breeding adults were together in the granary. More (very inferential) evidence that group offsp. don't breed (in normal circumstances.)

Attempted to count stores here: 2490. However, this tree is very large and notably difficult to count. Given my inexperience here as well as the season I would say that 3500 holes is probably a rock-bottom minimum estimate that is vaguely comparable to others on the Reservation. In fact, noting that I estimated 3400 holes for Blomone, I would have to say that 4000 is a more reasonable (but still rock-bottom) estimate for the number of useable holes here. There are, of course, several dead limbs already on the ground here indicating that there were no doubt even more not very long ago.

This evening, as far as I could tell, most or all of the birds roosted back up in the hole I'd ambushed at this morning! Noone roosted in the granary, which is where I was watching.

14 April This evening's watch was totally screwed up when 2 characters came by at 1745 and walked off with my backpack and 25' ladder. Ron, however, thought he heard noises at dark coming from the direction of the '79 nest hole.

15 April This time Gwen watched at the upper hole, where 2 birds

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Buckeye — Hastings Reservation

(15 April) ended up roosting after a lot of rigamarole; noone roosted in the granary as far as I could tell, while apparently everyone else roosted in the '79 nest hole.

16 April 930. Today I was going to ~~d~~ set up an ambush at the '79 nest hole only to discover that they already have 4 eggs - fresh and not being incubated ~~d d~~ yet! Thus, my immediate plans are changed here, although I may still ambush at the other hole(s) tomorrow in order to see who's not roosting in the nest. Also, I now know some interesting things about roosting (particularly by the 1st yr ♂) while the eggs were (are?) being laid.

1900. Watched roosting at the nesthole tonight. I was unable to be sure about ~~w~~ who was who, however 2 birds definitely roosted in the nest. The first had rather light bands on his left leg and thus I guessed he was ♂234. The 2nd appeared to give a brief glint of aluminum as he zipped in, an thus I think was ♂252. Since this is not what was going on here last spring, however, the most prudent route may be to leave this indefinite until a better watch can be made.

17 April 1700. Noone in the hole when I came to check it: 5 eggs.

18 April 1600. Noone in the hole when I went up to check it, but this time it had 6 eggs! Sandy stayed on to see if they are incubating yet or not.

25 April 1530. Despite the continued roosting of a bird in the nesthole at night (I saw someone here on the evening of the 23rd and Ron saw ♂234 roost here last night) several nestwatches (go to p. 5) by Sandy

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Buckeye Nest Record	Hastings Reservation
16 April 930	4 eggs in nest, fresh. See notes for roosting behavior 12-15 April.
17 April 1700	5 eggs.
19 April 1600	6 eggs: ① 23.7×17.5 ② 22.9×18.3 ③ 22.5×17.8 ④ 21.9×17.8 ⑤ 24.0×17.5 } unmarked. ⑥ 23.6×18.1 J
25 April 1530	Still 6 eggs, cold. Nest apparently abandoned.
7 May 1630	New nest: 7 eggs (not fresh) ① 23.1×18.2 ⑤ 23.7×18.3 ② 23.4×18.5 ⑥ 24.0×18.5 ③ 23.1×17.5 ⑦ 22.5×17.5 ④ 23.5×18.2
12 May 1700	Still 7 eggs
17 May 1900	Both holes empty
26 May 1230	First nest hole opened: 8 eggs, freshish. ① 23.7×18.6 ⑤ 23.9×17.5 ② 24.3×18.0 ⑥ 23.5×18.7 ③ 23.6×18.9 ⑦ 24.7×18.4 ④ 24.5×18.3 ⑧ 23.2×18.2
30 May 1430	Hole still with 8 eggs but abandoned (see notes).

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Buckeye Nest Record (con't)

Hastings Reservation

5 June 1700 — New nest: 3 eggs (not marked)

6 June 830 — Now 4 eggs (4th laid between

7 June 830 — Still 4 eggs.

" 1630 — " " "

8 June — No eggs (see Ron's notes)

19 June 1630 — Nest #5 (in far valley Oak again). 10 eggs, however eggs 1-8 are ~~8~~ the ones from the last nest (all addled)

⑨ 22.4 × 17.8 (opaque)

⑩ 24.3 × 18.2 (opaque)

20 June — Eggs have hatched.

25 June 1600 — 2 babies (+ 6 addled eggs)

	① #619 Or-Lg	② #620
25 June 1600	26.8	11.3
12 July 1330	84.6 (84)	77.7 (51) (+1 egg)
Devel. sequence →	1	2

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Buckeye Hastings Reservation

(25 April) and Gwen have failed to see anybody incubate. Thus, I came up, flushing 2 birds from the granary (1 possibly from the low hole) and checked the nest hole (nobody in it, however). All 6 eggs were still there, but they are stone cold. So I went up and checked the low hole in the granary, also. It was empty, but in good shape.

Thus, my guess is that these birds have abandoned the nest, or, at the very least, are (being) rather nonchalant about incubating. We'd better keep an eye out here, since things are probably not settled yet.

27 April 1915. Came up at dusk to try and see what's up here. First of all, checking the nest, there was once again no sign of activity, thus supporting the failed nest hypothesis. I then returned to the granary and watched. At about 1910, the birds - 4 of them - suddenly appeared. Although they didn't appear to all arrive at once, they were all in the granary within 30 sec. of each other. After a short stint of Karst-calls they assembled together on a limb, each only a few inches from the next. After a brief tense moment one ~~appeared to make~~ made a move and briefly mounted a second bird, but the mounting was broken up in a flash and all 4 birds zipped off in a very tight pack to a 2nd limb. They all stayed there for another 30s or so until several zipped up to a (hitherto unknown) roost hole. Two went in, a 3rd hung around briefly before flying off in a Karst flurry toward the nest tree area. The 4th stayed out a little longer before going to the roost hole, entering it, and then

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Buckeye — Hastings Reservation

(27 April) just as abruptly zooming off (again in a Karrit-flurry) over in the direction of the nest hole. Thus 2 birds apparently roosted in each.

1 May Watched here this evening after checking over at the hole again and finding noone in attendance. The nest is almost certainly defunct, in any case, as for once all 4 birds roosted in the same hole (one of the granary holes). No sign of a 5th bird.

7 May 1530. Opened the low hole in the granary, where Ron said they were probably incubating, and found 7 (!!) eggs!

8 May 1930. Watched roosting here. When I arrived at about 1905 I flushed 3 birds from the granary (not the hole) but that's the last I saw of anyone. Unless the 4th bird was in the nest the entire time, noone roosted in it. (Same thing happened last night, see Gwen's notes).

10 May Watched here in the early evening; both a ♂ and a ♀ were in the hole most of the time, but I never saw any visits or identified the birds that were here. However, they were clearly incubating.

11 May Gwen came up here this morning and failed to see anything going on at the nest.

12 May This afternoon I came up to watch with the same results as the 10th - a ♂ and ♀ were in the hole for nearly an hour, then left, but nobody ever visited the hole. So 1st I checked the hole (still 7 eggs) then went down and brought up a real hide from which we can hopefully get some data here.

13 May Watched the nest for 3 hrs this morning; again with only poor

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Buckeye — Hastings Reservation

(13 May) success. I kept moving the hide back, however, in an attempt to make things ever less threatening to them.

14 May Watched here from 1030-1400., again having minimal success as far as the nest went, but → numerous birds were in the vicinity. I saw all 5 known residents (♀483, ♂♂234, 252, 424, and F♂504. Plus, I ~~saw~~ was fairly sure I saw a 2nd (banded) ♀, coexisting with ♀483, possibly being mounted briefly by one of the ♂♂, and also possibly being displaced and considered as an intruder. All very mysterious, and I can't clear it up at this point since I don't know who she was. But I think she was there, and may have been the cause of the unusual amount of activity in the granary (relatively). Whether or not she was the partial cause of the 7 eggs here remains to be determined; no matter how you look at it, this group is a problem!

15 May Watched the 'nest' here again from 1500-1700, this time seeing zero at the nest. However, I again saw most of the group members in the granary, and again thought I saw a 2nd banded ♀ - who again may have been displaced by ♂504. Very odd. Finally, as I left, I heard some calls over from the area of the 1st nest, so I walked over there and - 3 birds flushed out! So, who knows? Maybe this 2nd nest is defunct and they're about to go for a 3rd!

17 May 1900. Checked both the nest holes: both are completely empty!

20 May 1615. Checked all holes (externally), but no sign of yet another nest as yet.

26 May 1200. With a bird in the 1st nesthole (the '79 hole), I went up and

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(26 May) checked, finding 8 (count then-8) eggs, all rather fresh, inside. So we begin here again. At least now I'm willing to say that there must be 2 ♀♀ here!

30 May After one good watch a couple days ago Ewen reports that the nest here has apparently failed once again!

1430. Came up here, 1st flushing several birds from the granary, and possibly 2 from the 2nd nest hole itself (I checked it- no eggs). Then I went over to the other hole, where none was home. Checking it, there are still 8 eggs (I didn't actually go inside the hole so I couldn't confirm that they are cold) however it seems clear that they have abandoned here for a 3rd straight time.

31 May 930. Watching the granary.

1000. ①♂424 and ②♂ DLBlue/wh-#234 here briefly to shag out Bluebirds

1045. Birds are mostly off to the left. Going to move hide, check the other holes, and leave for now.

3 June 1045. Watching

1215. Leaving. Heard some calls from way up on the hill, but nothing else. None in any of the holes, either.

5 June 1030. Flushed 3 birds from the granary (possibly from or near holes) in passing.

1730. Returned, again flushing several birds from the granary. There wasn't anyone in any holes, but I went up and began checking holes anyway. There was nothing in the low nest hole or one of the roost holes, but in a 3rd roost hole I hit the jackpot: 3 eggs (using the peeper). Tomorrow morning we finally find out what's up here!

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8 June Ron came up here to check today but found no activity. He also checked the hole, only to find it empty! Thus, so goes nest #4 here. He also watched some, seeing many of the birds who are supposed to be here. See his notes for more details.

14 June 1100. I came by today, flushing several birds from the granary. Noone was in any holes there, but a ♂ was inside the far nest hole again. This would appear to be nest #5 for this group this spring, and the 3rd in this hole (they went: far hole, low hole in granary, far hole, medium-high hole in granary, far hole again).

15 June Watched the nest here from 730-1130. Everyone (except 1st yr ♂) was here.

19 June Finally went up to check the hole, finding an amazing 10 eggs (!) inside. This seemed a little excessive even for this ♀, so I opened it up to check. What I discovered was that she had laid only 2 new eggs here; the other 8 were all the ones from the prior nest here (see 26 May) which had never been removed. The 2 new eggs were opaque; the other 8 were all clearly addled.

20 June Gwen reports that the birds were feeding here: thus, the babies have hatched.

This unexpectedly early hatching didn't strike me as so unusual until Ron pointed out an interesting juxtaposition with the last "nest" which was in the granary. The 4th egg in that set was laid on the 6th. In order for the 2 eggs ~~here~~ in this most recent effort to hatch on the 20th, they had to have been laid on either the 7th and 8th or, at the latest, 8th and 9th. Thus, the inference is good that these 2 eggs are not a

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(20 June) 5th nest at all but rather the last 2 eggs of ~~the~~ clutch 4, the 1st 4 eggs of which were laid in the hole in the granary on the 3rd through 6th. This explanation, bizarre as it seems, also helps to explain why the eggs still in the hole from clutch 3 weren't dumped (something having to do with everyone's knowledge that eggs had already been laid - i.e., she was in the middle of her clutch. Thus the presence of the other eggs was "expected"). Obviously this doesn't explain everything, but it does help to piece together a few of the weird problems this group has presented this spring. What did happen to the 1st 4 eggs (and was their loss the reason she laid the last 2 elsewhere or vice-versa?) is anyone's guess. At least it looks as though they'll finally pull this nest off.

25 June 1600. Checked the nest (after flushing 2 birds, a ♂ and a ♀, from the hole) and found the 2 babies as expected (one very much heavier than the other, however). There were also 6 of the addled eggs from the prior attempt still in the hole with them.

12 July 1330. Banded the 2 babies, who are now #619 and 620. One of the addled, unhatched eggs was still in the nest with them.

21 September According to Ron, these birds still have lots of stores.

27 October 820. Watching from hide. The granary here is [still, already] practically full of stores.

830. ① ♂ DB/WH-LB #252 in granary.

855. ② ♂ WH-Red/DB-WH/W #504 flew into the granary with an acorn to store.

936. A brief appearance by ③ Yel LB-Yel/M #619 (♂ I think). Nobody's spending much time in the granary.

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(27 October) 1020. Giving up for now and moving the hide over to the S. of the granary.

3 November 830. Watching from hide.

945. Finally got a look at someone: ① ♂ yel/LG #619 in the granary. ② ♂ Wh-Red/M #504. ③ ♂ LB/Wh-DP #234.

1000. There were ≥4 birds hawking here for awhile; I was a ♀ who I think had a M band on her left leg and was thus most likely j620.

1030. ④ ♂ DB/M / Yel-LB #252 storing an acorn in the granary.

1105. I think I just had a brief look at ♂ Or-DB #424 here. ♂234, 252, 504, and 619 all in the granary regularly.

1115. Leaving. Not real clear what's up here, as several birds may simply be hiding out elsewhere. It will definitely take at least another long watch here.

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Plaque Hastings Reservation

14 January 1515. Went outside long enough to get all 4 birds here sitting atop the Plaque tree together. The babies, by the way, have molted: 521 is a ♂ and 522 is a ♀.

3 February 1215. Both babies (♂521, ♀522) up hawking from the top of Plaque.

4 February 950. Watching now with our 2nd yr captive ♀ up in a cage in the 2° tree. She has yet to make a sound since I took her out of Red House and is quiet and calm now. The residents are up the canyon somewhere.

1032. ①♂ w/un #473 came to 2° tree; appeared to take a look at the captive. But pulled out an acorn and flew off with it, apparently ignoring her. Is now atop 2° tree eating the acorn.

1055. ②♂521 is on a limb ~8 ft away, obviously interested. Meanwhile one of the ♀♀ is hawking atop the tree.

1100. Both ♀♀ in the tree now. ♂521 still the only bird near the captive. ♂521 preening at the moment.

1104. ♂521 finally flew off. Several birds near here now but none in the vicinity of the cage.

1112. The other baby (♀522) here also. Both babies are busy moving stores around in the granaries.

1150. Quitting. Still no clear interest in the captive, though birds are in the area still. ♂521 are the closest to her.

12 February 1600. Counted stores: Plaque tree: 1397 } Total: 1867
Other: 470 } (est. - includes an est. 300 in the roost holes in the telephone pole, which are still full to the brim).

15 February 1705. Some calls here in the Plaque tree were directed at a Crow. The bird who actually buzzed the bird and was

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(15 February) most excited about it was ♂521, the baby.

10 March 1600. ♂521 fiddling about in the telephone pole.

23 March This morning, while up here with Rocky's class telling them about Woodpeckers, I saw all 4 of the residents here. At one point the 1st year ♀522 flew up to the Blue Oak by the cabin to chase out a Sapsucker, following which she sapsucked herself for quite a while. Otherwise the birds were flycatching and moving stores around.

1 April John Davis pointed out a Crow here who was apparently stealing stored acorns. The bird would take an acorn and then sit in the Plaque tree while 2-3 Acorn Woodpeckers would mob him. ~~This left the Crow nonplussed~~ This activity failed to nonplus the Crow, however, who just sat ~~sh~~ dealing with the acorn until he finally decided to fly off. This scenario apparently reoccurred several times.

Later today a Starling was here, but was quickly and expediently chased away from the area several times by the woodpeckers.

6 April 1645. An intruder here ~~C~~arricked several times, arousing the ire of at least 2 residents, who karrit-cutted and flew to the top of the Plaque tree. When the intruder then flew into Plaque, he/she was immediately chased.

Later, I found out that Greg Butcher (here visiting Pat) had first seen an intruder here at about 1530. This intruder was very persistent. In watching at

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(6 April) about 1730, I realized the following:

a) there was apparently only 1 intruder still, being vigorously chased by 1 of the residents and justly slightly less vigorously by a 2nd. The intruder was a ♀. However, we failed at pinning down who was chasing whom. Ron tried to watch the birds not doing the most chasing and identified ♀522, the baby here; however, both the intruder and the chaser - also a ♀ - appeared to be banded. Later, however, Ron identified the most persistent intruder as an ub ♀. We also saw ♂521 and ♂473.

b) It occurred to me, after watching for awhile, to notice that the intruder garricked constantly once she stopped on a limb, but was silent when being chased. Possibly in keeping intruders in the air as much as possible residents 1) maximize the likelihood that the intruders will give up and 2) minimize the displays given by the intruder which would attract other intruders and incite a Revolution.

c) Throughout this period I was assuming that everyone here was fine and that the intruder was just that - an intruder. However, after I put a net up in the Plaque tree and watched some more it became apparent that 1) the adult ♀482 was not here, 2) additional intruders were arriving, and 3) therefore, that persistent ♀ knew, apparently, that there was a vacancy here despite the continual chasing she was

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(6 April) subjected to. This latter part is particularly amazing – she was apparently here from 1530 [redacted] to about 1800 – 2.5 hours – by herself, subjected to almost constant harassment, before any other intruders joined her.

By 1800 I had the net up and watched as several additional intruders appeared and activity continued to escalate. Over by the creek near the Griffin's I identified 3 banded intruders, 2 of whom were ♀7523 and 524 from School Hill [not seen there recently and apparently wandering; both are 1st yr] and the 3rd of whom was something like ♂M/Red ?? It was about this time, with ≥4 ♀ intruders here, that we realized we had not seen ♀462 and that she was no doubt gone. How these birds knew it, even while being vigorously chased – is a mystery to me.

Even though Ron's pretty sure that the 1st yr ♀ here (♀522) was not the 1° chaser, she was definitely doing a lot and got herself caught in the net during a chase at about 1830. At that point we gave up for the night, even though activity was still continuing.

7 April I arrived here at 800, at which time there was lots of fighting going on, all up by the Hastings Cabin. I received the following report from Ron and Greg: Ron arrived at 645 and fighting had been intense already at that time. Chases, grappling, and the

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(7 April) works. Both 1st yr School Hill ♀♀ were here (♀523 and ♀524) along with an unbanded ♀ (at least briefly) and the mysterious ♀M/Red. Doing the chasing were both the babies here - ♂521 and ♀522; A♂473 was apparently much less concerned about the whole business. ♀482 definitely was gone. Revolution activity was in full swing; Ron even saw mounting

Activity only continued for a relatively short time after I arrived, and by 830 the intruders had left, at least temporarily. This left the 3 residents here intact for the time being.

Purge: ♀482. Last seen here on 23 March; gone just prior to 6 April → Disappeared about 5 April 1980

1200. After a lull of a couple hours there is an intruder back here, apparently being chased by all 3 residents (least so by ♂473). Whoever she is is garnicking over in the Sycamore when given the opportunity. Chasing is fairly continuous.

1718. The birds are at it again, with at least 1 unb ♀ intruder getting chased by ♂473 (karrit-cutting vociferously) and ♀522.

8 April 900. There is still lots of activity here - the 1st bird I see is ♀M/Red-DB #523 from School Hill in the Sycamore.

910. There is only a moderate amount of chasing right at the moment but apparently several intruders.

1000. After watching awhile myself and also talking

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(8 April) to Ron, who's been here for awhile, the situation is apparently thus: the School Hill ♀♀ are here, but peripheral, spending most of their time over in the Sycamores and by the Griffin's. Meanwhile, 1, and possibly 2, unbanded ♀♀ clearly have the upper hand as far as moving in permanently. Both ♂♂ are here with her in the Plague tree and all are friendly; we saw the 1st yr ♂ hop over to the ub ♀ at one point and almost mount her, but he only got as far as hopping a little on her tail. He tried again a few minutes later but didn't even get quite that far. Meanwhile, the 1st yr ♀522 has apparently given up and is spending her time in the Blue Oak up by the Cabin gamicking herself sometimes and waka-ing to herself (!). Note Ron's observation last evening of ♂473 pecking the daylights out of ♀522 in Plague when she made a move to chase out the ub ♀. Apparently things are going to go as predicted here.

1100. Still plenty of activity here. Over in the locusts by Griffin's house the 2 Sch. Hill birds (♀523, ♀524) are still hanging out; ♂473 is here a fair amount also, occasionally chasing the ♀♀ when he feels the inclination.

1140. ♀522 is still up by herself by the Cabin.

1145. In the main area are ①♂521, ♀ub, plus ♂473, who is still going over to Griffin's regularly. ♀ub is occasionally Drumming and Gamicking herself.

1400. I was called by Jim and told that we had a bird in the net! In fact, it was an unbanded ♀ - who

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(8 April) I banded as ♀534 and bled. The strange thing, however, is that she only weighed 64 gms – possibly a record lightweight. In fact, I couldn't believe she was that light and still alive. When I let her go she in fact did not fly very well, but only was able to go short distances and did not look in very good shape. Meanwhile, activity had all but ceased, but I rather doubt either that she's the same ub ♀ who had appeared to have the upper hand here or that we'll see her again.

1500. Watching. That may have been the ub ♀ after all. Both ♂♂ are in the Plaque tree but are pretty quiet and no ♀ seems to be with them. Meanwhile, the Sch. Hill ♀♀ are still over by the Griffin's

1503. ♀524 is quiet upset (by the Griffin's house): harrit-cut-cutting like crazy. ♂473 here also, but not chasing here.

1510. More chasing here – moving over toward Plaque.

1513. Both ♂♂ (particularly ♂473) are chasing the (one of the) ♀ from Sch. Hill. How long will it take them to realize that their... Scratch that – here she is – ♀534 in Plaque greeting the ♂♂! That's definitely her!

9 April 900. Returned this morning to find even more activity – at least 7 birds chasing, flying, displaying, and so on. A good Revolution! I watched for a few minutes and saw 1) no sign of ♀534, 2) ♂521, ♂473 (Plaque) both here, 3) the School Hill ♀♀ here (♀523, 524), 4) one of the 1st yr ♀♀ from Blomone (♀496), plus 5) ♀ub.

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(9 April) Meanwhile, ♀522 (1st yr-Plaque) is still up by herself (and sometimes with a 2nd bird) by the Cabin in the Blue Oak. Things were busy enough to prompt me to put up nets, in which I caught

1-2) ♂521 with ♂ub (now ♂535) in Plaque (former apparently chasing the latter)

3) ♀ub, now ♀536

4-6) ♀496 (Blomone), ♀523, ♀524 (School Hill).

After all this, I went back to watch:

1140. Still lots of activity. ♀473 here.

1150. ♀524 in 2° tree.

1155. ♀524 displacing ♀496. ♀496 appears to be the primary chasee here: ♀523 here.

1215. ♀521, ♂473 up by Cabin. Both flew to 2° tree. ♂473 stayed, by ♀521 remained <5 sec. and then flew back to the Cabin.

1220. Still appears to be 1° ♀523, ♀524 chasing ♀496. No sign of ♀534, ♂535, or ♀536. Looks good for the School Hill ♀♀ moving in for good.

1500. Still lots of displaying and chasing here (nets are now down). Still ♀496 who getting chased.

1505.! ♀496 still getting chased by everybody - nope - ♀494 here also!

1540. Finally caught a bird by hand when she fell to the ground in a fight (♀524)! These birds are still really going to it. It's hard to tell what's up, since the ♂♂ seem to alternately wake to

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(9 April) the ♀♀ (any of them) and then chase or displace them; ~~but~~ also, the 2 pairs of ♀♀ are fairly evenly matched; however, I think the Sch. Hill birds have a slight edge. The Blomore birds do seem to have the Plague tree, however, which may be to their advantage (the Sch. Hill birds are in the 2° tree; the ♂♂ are in both). Most of the serious fighting is also in the 2° tree, apparently between the 2 sets of ♀♀.

This evening Ron reported that ♀494 and ♀496 appeared to have won - not only did he see the ♂♂ mounting them (inc. a copulation between ♂473 and ~~♀♀~~ one of the ♀♀) but he also saw the School Hill ♀♀ actually fly off toward School Hill near the end. This is all rather exciting! even if those 2 ♀♀ from Blomore were supposed to stay and breed back home!

10 April Ron watched here today, reporting that ♀496 and ♀494 are now well ensconsed; he also saw several more copulations betweem ♂473 and ♀496 (?). ♀522 appears to have disappeared entirely, and was not even up by the cabin anymore. See Ron's notes for more details.

12 April 900. ♀473 over with ♀496 over by the woodpile; ♂521 with ♀494 atp Plague.

915. A chase - ♂521 chasing ♀496 (!)

923. Several birds converged at the top of Plague; ♀496 mounted ♂473, then he mounted her, then she mounted him.

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(12 April) Meanwhile, ♀494 was just above them on the branch. About 2 minutes later, ♂521 chased ♀496 again.

♀522 would definitely appear to be gone, by the way, → Left group about 11 April 1980.

Meanwhile, both ♀494 and ♀496 have clearly moved here.

16 April 1115. Something going on here - 1 bird getting chased (♀496??) other 3 quite friendly. Either there's an additional intruder or else ♂521 is really running ♀496 out or else yet something completely different is up here.

2 May At dusk ~~all~~ 3 birds were up the canyon behind the Upper Barn (on Tregea's); but just at roosting time they zoomed down to the main area somewhere or other. Thus, I failed at finding their roost hole. I don't think they returned up that canyon (although there are some holes up there).

10-12 May The big news here is that ♀494 laid an egg in a hole in the Blue Oak by the labs at 0700 on 10 May - with Ron diligently watching. We proceeded to put a full dawn-to-dusk watch on the hole, supplemented by numerous hours of watching the group by Ron. However, by 1400 on 12 May we gave up: even though there had been some visits by the birds to the hole, noone laid any more eggs or tossed out the one that was there (we checked the hole after every visit by a ♀). Furthermore, no woodpeckers at all went to the hole from about 1300 on 11 May on. We also kept checking the hole up the canyon that Ron found, but there was no further sign of breeding activity by the evening of the 12th.

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Plague Nest Record	Hastings Reservation
10 May 1000 (Laid 700)	1 Egg (laid by ♀494): ①25.5×19.8 (5.60gm).
12 May dusk	No further eggs (see notes).
23 May	Two eggs laid: 1 tossed right away, the 2nd a runt (21.1×16.6) which was tossed shortly thereafter.
24 May 622-658	Two more eggs laid: (Measured & weighed ≤½hr after being laid) ① 26.0×18.5 (4.91gm) (♀496?) ② 25.3×19.8 (5.59gm) (♀494?)
25 May 630-658	3rd egg laid by ♀494: ③ 26.6×20.4 (6.16gm) ♀494 for sure.
26 May 715-808	4th egg laid by ♀494 ④ 26.4×20.0 (5.81 gm) ♀494 for sure.
~915-1000	5th egg laid by ♀496 ⑤ 25.7×18.1 (4.68gm) ♀496 for sure
27 May	6th egg (could have been either-prob. ♀494) ⑥ 25.9×19.1 (5.20) (♀494?)
28 May	7th egg (laid by ~~♀496~~ ♀494 most likely) ⑦ 25.9×18.6 (4.85) (♀496?)
29 May 1900	Still 7 eggs, warm.
1 June 1445	Still 7 eggs, warm.
5 June 1100	" " " "
6 June 915	" " " "
7 June 900	Egg #1 hatched; #3,4 pipping, #2,6,7 not pipping yet, #5 gone entirely (!)

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Plaque Nest Record (cont'd) — Hastings Reservation

Egg→	①	②	③	④	⑤	⑥	⑦
7 June 900	Hatched	Opaque	Pipping	Pipping	Gone	Opaque	Opaque
	Mark→ L Heel Pad	All 3 hatched; don't know who from which					
1730	5.7	R. Heel Pad 6.7	4.6 (L. foot)	4.3 (R. foot)		Pipping	"

(for subsequent measurements, see Doris notes).

28 June 1430	#608	#606	#607	#605		#609
12 July 1000	X ♀		X ♀	X ♂		X ♂

X Dead in nest

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(10-12 May) However, on all 3 nights a bird did roost in the nest hole, so they are certainly still somewhat interested in it. In any case, we don't know at this point whether this egg is essentially abandoned and that they'll nest anew in a short while or ~~else~~ if they're just playing games here and will continue on with the nest tomorrow. Hopefully we won't miss it either way.

See Ron's notes for more details as well as the transcriptions from the continuous nest watch.

19 May Watched the 'nest' here (hole used last year which they've been refurbishing after I cleared out the water which had accumulated in it 2 days ago) from 600-950, but nobody at all visited it.

20 May Watched the hole again from 500-815; there was one brief trip to (but not into) the hole by ~~7~~ 496, ~~but~~ but otherwise it was another soporific watch.

845. Counted stores: Main (Plaque) tree: 1055

2° tree 69

Tel pole ~60

1184

Plaque and 2° tree are still quite full; the only main difference from several months back is that most of the acorns stuffed into the holes (roost holes) in the telephone pole have finally been removed and either used or stored elsewhere.

21 May After checking the hole here I watched once again from 515-815. With the fog moving in about 615 things were pretty quiet here, and there were no major occurrences. However, there were several trips to, if not actually inside, the hole:

515. Watching. / When I arrived about 505 there was a bird in or near

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(21 May) the hole, but the hole contained no eggs. | 609. ♂473 plus ♀496 at hole; ♀ looking in, both leave w/o entering | 703. ♀494 at hole, out (leaves w/o entering. | 712. ♀496 and ♂473 in top a 2° tree together. | 840. ♀494 at hole again but leaves w/o entering. |.

22 May 845. Birds at the hole (they're showing lots of interest in it now) but nothing in it yet.

23-24 May Two exciting days here, as these birds began their 2nd nest in the hole in the 2° tree. On 23 May they began: Ron saw ~~♀494 and~~ both ♀♀ go in, then watched as ♀494 went in and out several times while ♀496 stayed down for some time. Eventually ♀496 left. Just as Ron got out to check the hole, ♀494 went in and left with an egg! The nest, however, contained 1 egg still - a runt which was 21.1×16.6mm. At that point Sandy began watching, only to see ♀494 go in again and fly out with that egg!! At that point we watched for the rest of the day seeing the 2 ♀♀ and ♂473 spend a fair amount of time in the nest together, but to noone's surprise no more eggs were laid. Unfortunately, the tossing was a little unclear - did ♀494 know her egg (the runt?) was bad and so decide she could afford to leave hers and the other egg out? Or is it possible that ♀496 laid both a normal and a runt egg? In any case, the tossing itself is ironclad, even if we are unable to pin who did what to whom precisely.

On the 24th I watched during prime hours and saw both ♀♀ go in together again. ~~♀♀~~ After both being inside for a time ♀496 looked out for almost 10 min. Then she went back down while ♀494 looked out briefly and then left, followed

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(24 May) immediately by ♀496 looking out again and then leaving (I can tell the ♀♀ apart easily by their faces). We went up immediately to find 2 eggs - both cool (so they'd probably been laid right after the birds went it) and, interestingly, in different sections of the hole (so they actually may have been laid simultaneously by the 2 ♀♀ sitting together in the bottom). One was almost identical in size and weight to that laid by ♀494 on 10 May, the other quite different.

Our watch will remain continuous here for the time being; see transcriptions for further details.

25 May Watched here from 550-830, during which time ♀494 (for sure!) laid the 3rd egg. We continued the watch til late in the morning, but ♀496 did not lay today.

26 May Another morning watching, during which time ♀494 laid again (for a total of 4 eggs in the nest). I left at 900, but ♀496 did lay shortly after I left at least. This makes of total of 5 eggs in the nest, 3 laid by ♀494 and 2 by ♀496.

27 May Yet another morning watch (630-900) during which time neither bird laid eggs, despite both ♀♀ being inside the nest at one time or another. However, Ron continued the watch after I left and indeed, 1 additional egg (for a total of 6) was laid late in the morning. Unfortunately, both ♀♀ had been in the hole and the egg was rather intermediate in size between those known to have been laid by ♀494 and those (known or presumed) to have been laid by ♀496. Apparently, ♀494 was inside longer and, that along with the presumption that a late egg is more likely to be smaller rather than larger than earlier ones (something to be

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(27 May) checked) would point to ♀494 having laid the egg rather than ♀496. As with events on earlier days, see transcribed notes (Ron and/or Mine) for more details.

28 May Today Ron alone watched the nest. Nobody laid until late in the morning, at which time events were pretty much reversed from yesterday: ♀496 was in the hole longer than ♀494; one egg again was laid, this one also somewhat intermediate but very close to the size of ♀496's other egg(s). Thus, this makes 7 eggs, probably 4 of which were laid by ♀494 and 3 by ♀496.

By this time the birds were incubating fairly intensely; I watched at dusk and at 1940 ♂473 roosted by himself in the nest.

♂473 roosted in nest

29 May Ron watched some here this morning (and Sandy did a nest-watch here); no sign of more egglaying. I checked the nest at 1900 to make sure and there were indeed still 7 eggs in it.

30 May Pam saw ♂521 down at Y this morning; he clearly isn't real involved up at Plague even though he has been in the nest some.

The events here at Plague are unfortunately not perfectly clear, even though we have obtained some amazing data. On the ♂ side, ♂473 is clearly the only bird to be really involved here; ♂521, for whatever reason, has not paid undue attention to the breeding situation or followed either of the ♀♀. ♂473 on the other hand has more or less alternately paid constant attention to both of the ♀♀ - see Ron's notes for lots of details but even my observations show this: compare his attention to ♀496 on 21 May with his

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(30 May) constant following of ♀494 on 25-27 May. ♂521 has been around but ~~has~~ did not enter the hole at all during egg-laying (as far as I know) and has even been wandering by himself down at 4.

On the ♀ side, the situation is extremely interesting. We know, from Lori's observations, that ♀494 is dominant to ♀496. Both definitely contributed eggs to the final nest; 9 eggs (8 normal + 1 runt) were laid in all, 2 were tossed (both by ♀494), 7 ended up in the nest. ♀496 had a minimum of 2 eggs which ended up in the final set of 7, but could have had as many as 4. ♀494 laid at least 3, and may have 5. The most likely skew ~~was~~ is 4 ~~to~~ of ♀494 to 3 of ♀496, with 2 additional eggs tossed. (See back for chronology).

The ♀♀ were very attentive to the moves of each other right at the start, as one would expect if they were being wary of the possibility of the other tossing their eggs. This close association broke down almost immediately after 24 May, when the first 2 eggs not to be tossed were laid. The precise events surrounding the 23 May egg-tossing are unfortunately ambiguous. The possibilities that I can think of offhand are as follows:

① ♀496 laid both the eggs, a phenomenon made possible by the fact that one was a runt and thus came out along with the normal egg (runts ~~do~~ often do not have yolks, a fact which might render this a possibility). ♀494 did not lay until 24 May; thus she tossed both of ♀496's eggs

Chronology of the Plague nest

who laid ♀494	who laid ♀496	Date	
(the Runt?)	(Almost certainly)	23 May	2 eggs laid, 1 normal and one "runt." (Both ♀♀ in hole ♀496 constantly, ♀494 in and out) Normal egg tossed immediately by ♀494, the runt tossed w/in 30 minutes.
Yes	Yes	24 May	Both ♀♀ lay simultaneously. No egg tossing.
Yes		25 May	♀494 laid only. ♀♀ no longer together
Yes	Yes	26 May	Both lay, but at different times.
(Yes)		27 May	One egg only; inference suggests ♀494
	(Yes)	28 May	One egg only; inference suggests ♀496

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(30 May) as soon as possible, prior to her own 1st egg on the 24th.

② ♀494 laid the runt egg, ♀496 laid the good egg on the 23rd. ♀494 somehow 'knew' her egg was no good, thus emptied the nest completely prior to her own 1st good egg on the 24th.

③ ♀494 laid both eggs or the good egg. She then got extremely confused and tossed the eggs ~~out~~ out of sheer inexperience.

Of these 3, I like #1 the best: the only catch is: can a bird lay a runt egg simultaneously with a normal egg? I never thought that this would be a key sociobiological question, but I guess I was wrong. Possibility #2 is the only other 'reasonable' alternative. However, ~~if either~~ even if #2 fits (more or less), either the 'goal' of the tossing was to get rid of ♀496's good egg or else a) why ~~didn't she~~ aren't runt eggs tossed out more often? b) why did she toss both eggs, and the good one 1st no less? The problem here is: ~~to~~ does a ♀ ever toss her own eggs, bad or not? If so, we might have been expected to see it elsewhere, but I suspect the answer is no. All in all, we can't eliminate #2, but, given the striking coincidence that egg tossing again occurred, exactly where we predicted it, I'm willing to defend the hypothesis that ♀494 (who, after all, is the dominant) knew exactly what she was doing, whether it was tossing both of ♀496's eggs or tossing ♀496's good egg and her bad egg.

Following the events on 23 May, the subsequent laying

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(30 May) sequence is given on the back of p.16. We know both laid on the 24th, and that ♀496 skipped the 25th while ♀494 laid on both the 25th and 26th. Given the hypothetical layings of the 27th and 28th, we presume that ♀494 laid on each day between the 24th and 27th (4 eggs), while ♀496 ~~she~~ alternated: 24th, 26th, 28th, plus her 1 (or 1½) eggs on the 23rd. If we give her both eggs on the 23rd, she gets 4½, 1½ of which were tossed. Otherwise she gets 4 (1 tossed), while ♀494 gets 5 (1 tossed - the runt). Either of these are reasonable scenarios.

Once again, see our transcribed notes for complete details on our observations here during the last week.

1 June 1445. Checked the hole: still 7 eggs.

5 June 1100. Checked hole: all 7 eggs still there; warm; all appear to be fertile.

6 June 915. Checked the hole, where none of the eggs have hatched as yet.

7 June 900. Checked the hole, finding 1 hatched egg (baby was marked with ink on its left heel pad) from egg #1; eggs #3 and 4 were pipping; eggs #2, 6, and 7 weren't pipping quite yet, while egg #5 had disappeared entirely, with no evidence that it had ~~,~~ (even) hatched!

1145. Pam saw ♂521 over at the Blomquist's Knoll (at 4) today.

1745. Checked the nest again, finding 4 babies plus the 2 eggs. This time I weighed them all and marked them. Eggs 6 and 7 are the 2 still to go.

12 June Nancy reports having seen ♀494 on the census plot on the side of School Hill this afternoon (!).

21 June Yesterday at 930 I set up the movie camera here and got it

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(21 June) ready to go (it had already taken several days to get the battery set and to get the birds used to it). I didn't stay to watch, but Ron watched at 1200 or so and said that feeding was going just fine (the only hardware actually at the nest was one photocell connected to 2 thin wire leads). He also said that it didn't seem to be working, and that when he went up to weigh the babies he had a hard time getting it to trigger the camera. In any case, I left it set up until 930 today when I went up to collar the babies, and discovered that they had pecked at the photocell enough to have broken off one of the wire leads! The possibility of using all this stuff to watch nests is becoming ever dimmer. At this point, using the timer for time-lapse pictures seems like the best bet.

930. Collared the babies (the 4 largest only)

1130. Finished collaring. Got lots of bugs.

22 June Collared the babies (only the 2 largest - I held onto the other 3) from 1315-1430, but only ended up with a few acorn bits and 1 wing, even though at least 2 feedings were of insects entirely.

23 June Collared the 4 largest babies, 1400-1530. Managed to get a fair number of goodies this time.

24 June 1430. Collared the babies. 1600. Finished. Got lots of goodies again this time.

25 June With the movie camera set up and running (1 frame every "4s", actually more like every 4.3s with the intervalometer I was using) I did a nest watch here from 1035-1215, getting 48 feeding visits and using about 22' of the film.

26 June Collared the babies here, probably for the last time, between

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(26 June) 750-940. I did get several more items, including a giant hairy caterpillar fed by ♂521

27 June Watched the nest (with the movie camera going at 1 frame every 4.5s again) for 90 min, during which time I got a respectable 54 feeding visits (from 945-1115).

28 June Banded the babies here, of whom all 5 are in pretty good shape (the runt may not make it, but we'll find out one way or the other). They are now #605-609.

12 July 930. Ron went up to the nest and discovered 4 dead babies - only j606 made it out successfully. All were beginning to rot, but why they died is a total mystery. They were still being fed like crazy through 10 July (!), and all 5 could be seen looking out of the hole on 9 July, at least. There is no evidence that they starved, but what else might have done them in is a mystery to me. They clearly died either the evening of the 10th or on the 11th; if this is coincident with the fledging of j606 then maybe they quit feeding the nestlings once he fledged? They certainly weren't predated, and what other possible reason for their demise could there be?

We autopsied the babies as best we could, identifying 2 as ♂♂ and presuming the other 2 to be ♀♀ on the basis of lacking an obvious gonad.

1 August Counted stores: Plaque tree: 402 } 408
Others: 6 }

21 September Counted stores: Plaque tree: 52. No new acorns at all yet.

3 October Today the birds here were actively storing Live Oak acorns from the oak by the Bunkhouse. Checking the granary, I

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(30 October) found quite a few newly stored acorns, all of which have most likely been stored within the last several days. The oak they were harvesting from is one of those that I've been getting samples from. Actually, I soon discovered that the tree I've been getting the samples from is immediately adjacent to the large bunkhouse live oak.

8 October The birds are now quite active and busily storing. Besides the Live Oak at the bunkhouse, considerable harvesting from the 2° tree (Valley Oak) was taking place. After watching them take several from there I went over and took a sample of 4 to weigh and analyze.

17 October 900. Counted stores: Plaque tree: 533
2° tree: 59
Tel pole: ~125
} 717 roost (holes are almost all filled with acorns, as they were last year).

14 November 1400. Counted stores: Plaque tree: 1700
2° tree: 187
Tel Pole: ~250
} 2137

Just about everything is full here, some areas more so than I can ever remember them being in the past. The roost cavity in the tel. pole is completely stuffed; many acorns are stored low in the Plaque tree in bark that may never previously have been used. These birds have been busy!

I also took a sample of acorns - about 50 - mostly from the Plaque tree and about 20 from the Telephone Pole roost hole.

21 December Saw 0521 plus at least 2 others over at MacRoberts.

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Y Hastings Reservation

12 February This morning about 1030 I was working on my car by the School House and heard several calls by an Acorn Wdpkr up in the Torrey Pines over toward Y. About that time Pam came down and mentioned that on Sunday (10 Feb.) she had seen 2 birds hanging around the Lower Barn, Knoll, and so forth. These are the first sightings of any birds around here in ages. Now (1400) I'm here at the Lower Barn and don't see a sign of anyone, but it is possible that someone's moving in!

21 February 1500. There are at least 2 birds here up on the knoll.

9 March I have seen no further sign of anyone here during numerous short passages in the last 2 weeks.

6 April 900. 1 bird seen flying from the Pump to the knoll, but we couldn't locate her again when we went over to the Y to get a better look.

10 April 900. 2 birds were hanging around here in front of the barn. Later, about 1030, I identified one as 9524 from School Hill. Also later, Pam reported that these birds stopped by at the Pump granary as well.

12 April Gwen reports that at least 1 bird was here this morning when she ran by.

29 April 1335. At least 2 birds over here at the knoll.

9 May 1220. 4 birds in the '75 nest tree - the Plague birds? or who?

25 May Gwen saw ♂521 - the 1st yr ♂ from Plague - here about noon today.

30 May 1020. ♂521 down at the Lower Barn again today (seen by Pam). Pam also reports to having seen a ♂ here on 3 May who was almost certainly 9524 from School Hill.

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Y Hastings Reservation

5 June 1600. ♀DB-Or/DB-Or ♂M/DB-Or #478 seen by Pam here this afternoon. This is the adult ♀ (presumably with fledglings!) from Blomone.

7 June Pam saw ♂521 from Plague at the knoll at 1145 today.

7 July 1630. Both of the 1st yr (now 2nd yr!) ♀♀ from School Hill, ♀523 and ♀524, are presently sitting in the locusts in front of the Lower Barn.

18 October 1200. ♀ Blk/Wh Wh/M #602 from School Hill hawking in front of the barn by herself.

23 October This evening about 15M before dusk 1, and possibly 2 birds were here in the locusts in front of the Lower Barn. There are a couple trees here that are loaded with acorns, so let's hope someone gets the idea and moves in!

14 November 1450. At least 2 birds here, a ♀ and ♂ Yel/DP #402 (both are probably from School Hill). ♂402 was eating an acorn here; with luck maybe they'll start storing!

1455. Now there are at least 4 birds here - and I just flew in with a big green acorn!

15 November 1530. No birds in evidence here at the moments.

1630. There are now at least 4 ♀♀ here. It's a little late to identify much, but these are no doubt the School Hill contingent.

1635. 1 is ♀ Red-Wh/DB #604; also a ♂ here (♂402?).

17 November 1130. At least 2 birds in the area again.

Postscript: Pam also saw ♀524 here on 3 May and 14 June.

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1500 Hastings Reservation

11 January N. Joste saw ♂ M/LBlue # 493 here this afternoon

20 January Pam saw ♂ DBLW # 297 near here this morning while doing her census.

5 February 1445. Watching with my captive 2nd yr ♀ Acorn Woodpecker in a cage up in Tree 1.

1520. ① ♂ LB/LB # 493 and ② ♀ Yel- # 435 in trees on Lower Sap Side now.

Still noone in tree 1

1524. ♀435 flew over to the old 1500 nest tree to join another bird.

1525. Captive gave 2 garricks.

1527. ♀435 in tree 3; 1 bird in Tree 1 (not near captive).

1529. ♂493, ~~###~~ 2nd ♂ in Tree 1. ~~###~~ Second ♂ kamit-cutting. Flew to sap side. Still no one near the captive.

1543. Birds flew across the road, somewhere, for something.

1615. Noone. Leaving. This time I got virtually no response, or at least nothing that I could really quantify.

12 February 1430. Counted stores: Tree 1: 1210; Tree 2: 267 } 1477.

1440. ♂297 plus 2 other birds in the old nest tree at 1500; 2 flushed up the hill. This area still belongs to 1500! There are no stores over here, however.

1520. See 1500 notes for a bird from here who flew over an intruded at 1500.

28 February ♂492 seen by Nancy Joste up at Haystack-Blomquist.

21 March Purge: ♂298. Last seen 6 Nov. 1979, gone by 12 Dec. 79, → Disappeared about 24 Nov. 1979 ± 2 wks.

10 April 1030. Nobody in any holes here.

24 April 930. " " " " "

1115. ① ♂ Yel-Da/Or # 297 up by himself in Tree 3.

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1500 Hastings Reservation

29 April 1900. Finally found a bird in a hole across the road here this evening which is no doubt 1500's nest. I flushed the bird out and heard nothing, but it was pretty late to expect to hear anything even if they do have babies already.

30 April 845. Using the 16' step ladder plus ½ of the extension ladder I went up and opened the hole here, finding 6 pretty fresh eggs.

2 May Nancy reports some very strange goings on here - the nest appears to have been taken over by an Ash Throated Flycatcher! See her notes for more details. She ~~had~~ has seen no incubation here, but she did see the ♂ come her and make a series of trips removing sawdust from the hole - apparently deepening it!

9 May 1230. Bird in the hole again - maybe they're going to redo it here.

1500. Yes indeed - looked in with the peeper to find 2 fresh eggs!

13 May 1500. Checked the hole again (Nancy says they've been incubating for the last several days) and they now have 6 eggs! (That means the last one was laid this morning! (!) (?).

19 May 1330. Checked the hole: still 6 eggs.

29 May 1615. Checked the babies, of whom there are 3 (they were a little older than I'd expected). No sign of what became of the other 3.

3 June 1400. After Nancy reported no feedings or activity here I went up to check, finding all 3 babies dead in the hole. They had no feathers yet, but their eyes had been open. I weighed them and removed them from the hole.

1530. Counted stores: Main tree: 557
Tree 2: 54
} 611

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1500 Nest Record — Hastings Reservation

30 April 845 — Hole opened: 6 eggs, fairly fresh
① 24.6 × 19.5 ④ 24.8 × 19.8
② 24.0 × 19.2 ⑤ 24.7 × 19.1
③ 25.2 × 19.1 ⑥ 23.4 × 18.7

(1)

9 May 1500 — Two new eggs in hole now.

(2)

13 May 1500 — Six eggs in hole now.

19 May 1330 — Still six eggs (I have not touched this 2nd set)

29 May 1645 — 3 babies, no sign of unhatched eggs

	① Or-LG	② Yel-Blk	③
29 May 1645	34.7 (15)	34.0 (15)	22.6 (12)
3 June 1400 (all dead)	46.2	45.2	38.1
Sex (autopsy)	♀	♂	♀(?)

24 June — New nest found

25 June 900 — Hole opened: 4 newly hatched babies plus 1 fertile egg.

18 July 1830 — 2 babies

	① 622	② 623
18 July 1830	86.6 (77)	79.8 (75)
Devel. sequence	1	2

2 just a little behind 1

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1500 Hastings Reservation

(3 June) I also checked up on last year's nest hole, which had a few problems (they had almost deepened the entire bottom out), but it was easily fixed.

~~7~~ 6 June Opened last year's hole again; there was nothing in it but it certainly seems appropriate for a nest at this point.

19 June 1545. Checked holes on the main side, but nothing up.

23 June 1140. Checked all the holes here, but saw nothing. Also watched for 20 min, but nobody at all came by.

24 June 1120. Watching.

1130. ①♂ DBLW #297 flew into granary from the creek.

1140. ♂297 flew to the Live Oaks on the Upper hide side. No sign of the ♀.

1145. ♂ back hawking from tree 3.

leaving. There could be something up here, but it will take some more watching to find out for sure.

Just as I was going, the ♂ flew up and over to the side of School Hill. That did it, so I walked over, and sure enough, there was the ♀ in the hole in a small Valley Oak about 1/3 of the way up in the hole I found back when I was looking for their 1st nest. I flushed her and heard nothing, so maybe they still have eggs.

25 June 900. Went up and opened the hole, which now has 4 newly hatched babies (maybe in their 2nd day) plus 1 fertile, unhatched egg. So the clutch size here was 5, in any case.

18 July 1850. Banded and bled the babies, of whom 2 have made it. They are well along and now #622 and 623.

2 August 815. Counted stores: Tree 1: 196 } 206.
Tree 2: 10 }

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1500 Hastings Reservation

(2 August) In tree 3 I saw ① j Red/Yellow #623, so the babies are out and around.

27 September 1050. No stores remaining here and no new stores put in yet. ~~remaining~~.
Wait - we just found 1 brand new acorn in Tree 1!

10 October 1000. ④ ♂ Blk/Or·Blk #622; watching the granary.
1010. ② ♂ LB/LB #493 here also; now along with ♂622 and ③ j Red/yel #623 apparently molting to → ♀.
1045. Birds apparently wary; also, even though they are eating green acorns, nobody appears to be storing as yet.
1055. Leaving.

17 October 930. Watching from hide.
1010. ① ♂ LB/LB #493 over in lower sap side; along with ② ♀ Yel-Blk/Lgt #435.
1015. Landing in tree 1: ③ ♂ M/Blk #492.
1022. Over in LSS is now ④ ♂ Or/Lgt-Blk #297 (no wing streamer on Luring).
Looks like everyone is here, but noone is storing as yet.
1030. Leaving.

15 November 1600. Counted stores: Tree 1: 1561 } 1976.
Tree 2 415 }
This tree is stuffed up in the style of the old days!

21 December Saw ♂493 and ♀623 down at the creek in passing.

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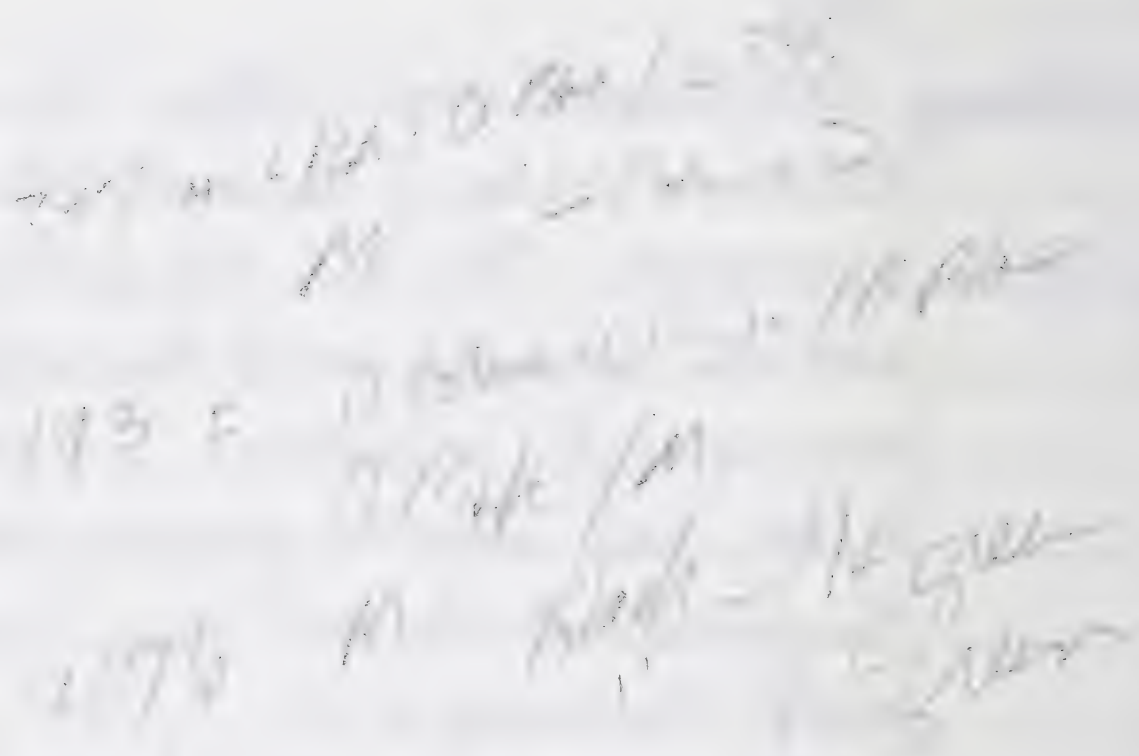
1600 Hastings Reservation

12 February 1500. Counted stores: 1046. This doesn't include about 95 acorns in one of the dead limbs which fell since the last count. This limb had about 200 holes (possibly 250) and was actually one of the larger sets of storage holes here up until its demise. I moved it over to the fallen limb above the granary and put it up off the ground so the birds may reclaim some of the acorns remaining in it.

Other minor but worthy-of-note details: 1) I noticed a new hole in a dead limb about 40' up over in the side of the tree away from most of the stores. It looked like a good candidate for roosting or a nest. It didn't look easy to open. The limb is only 6" or so in diameter and is permeated with fungus. 2) The 1500 birds are still using the old nest tree here at will (see 1500 notes). Also, while I was counting stores, I saw a bird fly from the hillside up above the granary (toward LHay) directly to 1500 (!). I have no reason to believe that this group isn't still doing fine, however; they do have a goodly number of stores salted away here.

1520. On my way back to 1500 I saw a bird fly from 1500 over to the old dead roost tree over by R Horsetail. Whoever it was was immediately displaced by one of the 3 birds that were there (presumably the whole group).

30 March Ron reported birds here flying in and out of the nest hole in the granary, so we went up and checked the hole with the mirror. But, as suspected, nothing yet!



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1800 Hastings Reservation

10 April 1025. Nobody in any holes here.

24 April 915. " " " " " "

1 May 1700. Much to our surprise, these birds have managed to slipe in a nest (in the nest hole!) already and have newly hatched babies! I didn't open the hole because it's very fragile, but they are no more than 3-4 days old, probably only 2 or so.

8 May 1600. Worse even than I remember it, I opened the hole here and banded the babies, of whom there are 5. They are now #561 to #565.

3 June 1545. Counted stores: 395. Saw one fledgling in one of the other holes in the granary.

9 July 1700 At least 3 babies - ;563, 564, and 565, - plus an adult ♂ - are over in one of the Ione Valley Oaks on Blomquist field just on the way back from Blomone. Quite a ways from home! (see map on back).

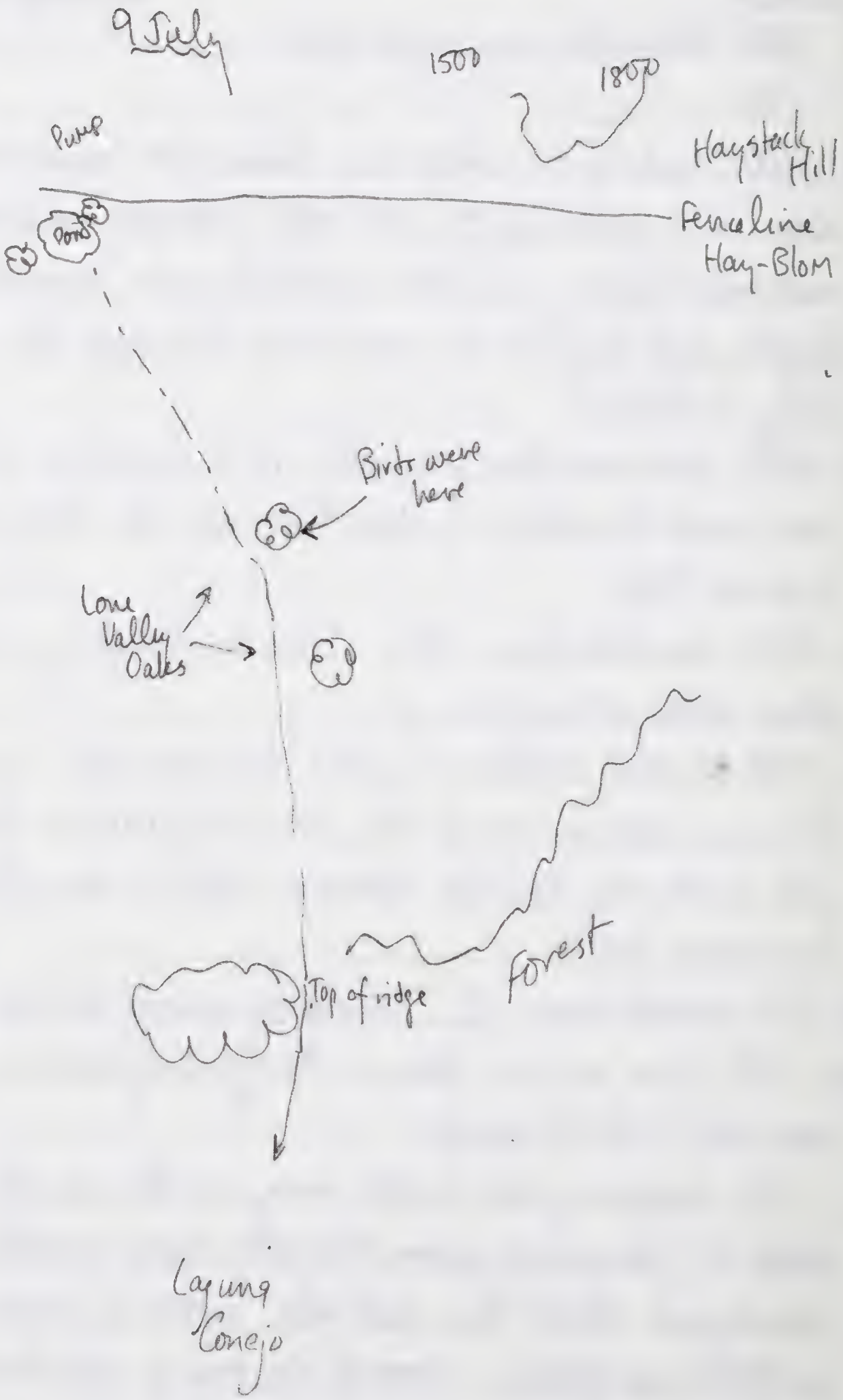
2 August 750. Counted stores: 21. Definitely nearing the end here.

27 September 1100. There are no stores in the granary here as far as we can tell (old or new).

1125. Wandering over to the snag on the side of the hill down by the creek where the birds have roosted we discovered that the roost hole (where I ambushed ♂476 in 1978) has fallen. Most of the tree is still there, but that limb is long.

17 November 1115. Counted stores: 1304 (all in the Main tree et environs; the old nest tree is still not being used!)

21 December At least 5 birds up in the dead tree - ♀565 identified.


9 July
1500
1800
Pump
Haystack Hill
Fenceline
Hay-Blom
Birds were here
Lone Valley Oaks
Top of ridge
forest
Laguna Conejo

Melanerpes formicivorus

1800 Nest Record — Hastings Reservation

1 May 1700

Nest found w/ babies already.
Not opened due to the fragility of the hole.

19 May 1600

5 babies, banded & bled.

	①561	②562	③563	④564	⑤565
19 May 1600	82.6(63)	80.9(63)	80.4(61)	84.2(56)	65.0(39)
Devel. sequence (crown) →	2	1	3	4	5 Definitely last

1+2 very close

3-4 very close

1-4 all pretty close

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Haystack-Blomquist — Hastings Reservation

11 January — L. Hanks saw 2 birds here (1♂ and 1♀) this afternoon, but was unable to identify them.

15 January — 1650. 1 bird sitting in the perch tree.

19 January — 945. Watching.

1000. ①♂ orlm #173 plus ♀ in perch tree. ②♀ wn-/blk #484. Both here together.

1015. Leaving. Things appear to be cool, calm, and collected here with the birds just hanging out and eating stored acorns.

21 February — 1515. Counted stores: 2125. Still loaded here.

The Valley Oak roost tree up above the granary here on HMR has already leafed out with new leaves ~½" long - an early spring indeed! Going up there, I find that some of the leaves are a good 2" long already, and also the tree is just beginning to bloom.

28 February — Nancay saw both adults up here today along with (first-yr) ♂492 from 1500 (!) All apparently rather amicable toward each other.

26 April — 1545. Checked the nest (same old nest hole) where Ron had seen a bird looking out: 4 eggs, not fresh.

7 May — 1700. Checked the nest, where all 4 babies are fine (and fairly old).

24 May — 1215. Despite the rotten weather, it was time to band here, and I did: the 4 are now #573-576.

28 May — 945. Counted stores here: 1318. Still doing fine here.

7 June — 950. Passed by here, but didn't see anyone in any holes except for a baby who was (!) squee-trrring from the nest hole.

2 August — 650. 2 ub juvs in the granary; now ♂173 here trying to displace them.

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Haystack-Blomquist Nest Record

26 April 1545

Hastings Reservation

Hole opened 4 eggs (incubated)

① 27.2 × 19.0

② 26.7 × 19.8

③ 25.3 × 19.8

④ 26.1 × 19.9

7 May 1700 — 4 babies

	#573 ① Yel-Blk	#574 ② Red-Yel	#575 ③ Lo-Or	#576 ④
7 May 1700	31.8	25.6	31.4	21.4
24 May 1215	85.1 (76)	75.4 (57)	85.7 (66)	68.6 (45)
Devel. sequence → (crown)	1 close w/ #575	3	2 close w/ #573	4 way behind

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Haystack-Blomquist Hastings Reservation

(2 August) 700. Unbanded ♀ came and investigated the granary for a few minutes while I was counting stores. Definitely the wandering season!

Stores: 550. Not bad.

740. Now ♂173 and j576, here displacing intruders (unbanded juvs, I believe). → j LB-Blk/LB-Blk #576.

745. Unbanded ♀ in Valley Oak on HNHR side just down the fenceline 80m from the nest tree here.

21 September 1600. Flushed ♂173 from the granary apparently storing, and indeed they are at work here: 106 acorns, all new and green, now adorn the granary.

1650. Watching. ①♂173; ②♀ Lgt/DB #4884.

1705. Finally - one of the babies: ♂ LB-Blk/LB-Blk #576.

1710. Leaving. No obvious sign of >3 birds, but a watch with the hide should get everyone rather easily.

7 October 845. Counted stores: 1235. Doing very well here, despite the fact that the acorn crop is at best fair around here.

10 October 920. 3 birds flushed when I arrived.

930. ♂ Or/M #173.

945. ②♂ LB-Blk/LB-Blk #576. ③♀ BP-Or/Blk #484.

These 3 do indeed appear to be it.

950. Leaving. First-yr bird is storing right along with the other 2.

13 October Purge: j573, 574, and 575. All seen by Ron on 13 July; all apparently gone by 2 August → Disappeared about 23 July ± 1 week.

14 November 1515. Counted stores: 2360. The tree is pretty darn full!

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Lower Haystack — Hastings Reservation

15 January 1615. Watching. A ♀ here chasing out some other birds from the granary: ①♀ DK/Yellow #515.

1640. ♂ here also, but getting too dark to see.

19 January 1020. Watching from hide.

1032 ①♀ DG/M #515 here in main granary.

1037. ②♂ M/LB-WH #461 looking around in granary.

1040. ③♂ Or/DP-Or M/ OrRW #307, still here after all.

1114. The baby's here too: ④♂ (dk eye) WH-Yel/WH #511.

1120. Well, everybody seems happy and busy (tenting stores) here. Leaving.

21 February 1615. Counted stores: Main tree: 1660; 2nd any tree: 109 } 1769.

Meanwhile, ①♂307 and ②♀ DK/Yel #515 were together off in the side of the forest beyond the old nest tree in an area where at least 2 Valley Oaks were already flushing out with new leaves.

1627. Meanwhile, ③♂ WH-Yel/M #511 plus another ♂ (most likely 3461) appear up in the Valley Oak above the granary.

1 May 1630. Went up to the nest, which Ron found yesterday. It's in a strange spot indeed - in a knot in the granary. In any case, after taking the top off it we found 3 eggs, incubated.

7 May 1720. Checked the hole, where all 3 babies hatched and are fine.

28 May 845. Banded and bled the babies - who range markedly in size. They are now #587-589. Also counted stores: Main tree: 1374 (none elsewhere).

7 June 1000. Checked holes, but didn't see anyone.

2 August 730. Counted stores: 649 (all in main tree). There are birds in the vicinity somewhere (I saw 1 juv.).

Melanerpes formicivorus

Lower Haystack Nest Record — Hastings Reservation

1 May 1630 — Hole opened, 3 eggs, incubated.
① 29.2 × 18.9
② 27.8 × 18.6
③ 29.2 × 18.8

7 May 1720 — 3 babies

	#587 ① R-W(R)	#588 ② R-W(L)	#589 ③ NB
7 May 1720	14.6	10.0	7.1
28 May 830	84.0 (90)	64.3 (75)	53.3 (60)
Devel. sequence → (crown)	1	2	3

Melanerpes formicivorus

Lower Haystack Hastings Reservation

21 September 1630. Flushed 1 bird off when I came to check stores:
Main tree 380 (approx. 10-20% are new green acorns).

10 October 820. Watching from the hide.
825. ① ♀ DB/M DG/Yel #515 over in '75 nest area. ② ♂ Or RW #307.
835. ③ ♂ M/LB-Wh #461 here storing an acorn along with ♂307.
In granary also: ④ j ♂ Yel-DG/M #588.
The birds are harvesting from the area out beyond the '75 nest.
846. ⑤ ♀ Wh-DB/Or # 587 storing acorn.
905. Here she is: ⑥ ♀ Yel/LP #589.
913: j ♀587 just flew in with and stored an acorn.
920. That's it except for ♂511, who is certainly gone.

14 November 1600. Counted stores: Main tree: 3004
2° tree: 75
} 3079.

Doing well, I should say.

Melanerpes formicivorus

Blemore — Hastings Reservation

19 January 1255. Flushed 3+ birds here in passing.

21 February 1650. Lots of stores still here, but nobody seen in passing.

21 March Purge: ♀495. Last seen 27 Oct.'79 (by Ron). Gone by 25 Jan. 1980, when Ron saw 3 other birds here.
→ Dis. about 11 Dec 1979 ± 1 month.

At the moment, there are 4 birds here: Ron saw ♂479, ♀494, and ♀496 on both 25 Jan. and 14 March; a 4th bird was also present who we presume to be ♀478.

25 March The situation here didn't really clear up much when I ambushed at the '78-79 nest hole this morning (just as it was beginning to rain) and caught 3 birds: ♂479, ♀496, and ♀478! Whether the other ♀ (494) is in fact still here or whether Ron may have messed up between ♀494 and ♀478 is up for grabs at the moment.

The 2 ♀♀ were measured and marked with dye on their foreheads (Rhodamine B for ♀496, Malachite Green for ♀478). The ♂ was removed for our captive colony - this ~~removal~~ leaves this group with a Mother and at least 1 daughter only 1 year old. The hope is that a new ♂ will replace him and that both the ♀♀ will subsequently breed.

Purge: ♂479. Removed by me for experimental manipulation of group composition.

26 March 1430. My prior experience with vacancies should have prepared me, but I was nonetheless surprised to find some displays and chasing upon my arrival. Up in the main tree is a ♂; thus, the vacancy has clearly been found already.

Melanerpes formicivorus

Blomone — Hastings Reservation

(26 March)

1440. Now watching; all pretty quiet.

1445. 4 birds together atop Granary.

1450. There is a fair amount of waka displaying and somebody is drumming; this is definitely a low-intensity Revolution.

1500. This is great! Just the way it's supposed to be! The activity is a little subdued, but everything is here nonetheless. The question is, why didn't I bring my spotting scope? In any case, there should be no problem here as far as the new ♂ is concerned. There are at present at least 5 birds here, inc. ♀496.

1532. There's more activity as I come by again; just as I was watching, 2 birds fell to the ground in combat and remained fighting on the ground for at least 10 seconds until I started running over.

1534. ! ♀wh-Red/M #494 here! All 3 ♀♀ are here. There are at least 3 ♂♂ here fighting like crazy - and several are banded.

1537. 2 ♂♂ again fell to the ground in combat - there are even feathers flying here!

1540. 1 of the ♂♂ here is ♂ Or/Blk, most likely the 1st yr ♂492 from 1500! Leaving for now (it's very cold out). Somebody is now Garricking here, and drumming and fighting continues: it's a Revolution for sure - not large, but a Revolution nonetheless.

1620. Back with scope. ♂492 sitting in tree next to granary Garricking. At least 1 other banded ♂ in granary.

1625. ♂492 garricking; nothing much else happening.

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Blomore Hastings Reservation

(26 March) I timed him for 3 minutes, during which time he Garricked 28 times (9.3/min.). At that point birds returned. He is definitely off to the side, and does not go to the granary, where a 2nd ♂ is hanging out, drumming, etc. He is also banded: ♂ Red/M Red/Red, which makes him either ♂530 (BP-Or/M BP-Or) from School Hill West (banded there as an adult last fall) or bird 513 (DP,nk/M Or-BP/Or), banded as a nestling last spring at Corral Viejo #1. I guess the latter, but either is a possibility.

1640. Over in the small Blue Oak off to the North of the granary are ♀496 and ♀478. ~~♀496~~ ♀478 mounts a ♂ here; ♂ then mounts ♀478. ♀478 then moves over to sit by ♀496.

mounting

1643. 2 birds again fall (hard!) to the ground over in the other roost tree. My guess is that this happens when ♂492 and the other banded ♂ both follow a ♀ to the same place rather than sticking to their own areas.

1700. Leaving. It's bitterly cold here!

27 March 935. Watching. No immediate activity; upon arrival ①♀496, a 2nd ♀, and ♂(513 or 530) were all in the other roost tree.

938. Someone is drumming here. ②♀ R/M Red #494 here also. ③♀478 here now.

944. ♂(513/530) may be the only ♂ here at the moment.

947. Got a good look at the ♂: is ♂ DP/M Or-BP/Or #513 from Corral Viejo!!

955. ♂513 and ♀494 drinking out of a tree hole together.

1000. At least for now, things seem fairly settled here.

Melanerpes formicivorus

Blomone — Hastings Reservation

(27 March) Going to count stores.

Stores in the main tree are pretty hard to count since they're all over. I got 2682 in the main tree and 52 in the tree next door for a total of 2734. Given my count and the date, I would guess that 3400 holes is an estimate comparable to those I have for the other groups. This group ought to be in good shape for sometime to come.

9 April Both ♀#494 and ♀#496 over at a Revolution at Plague. In fact, by the evening they had clearly won. See my own and Ron's Plague notes.

11 April 1100. Bird in hole in granary; flushed out when I walked over to check more closely.

12 April 820. Two, possibly 3 birds here in/near the granary, but I got chased by a ♂ after a minute or so. Noone in the hole when I arrived.

19 April 945. 1 bird flushed from here but noone in any holes.

25 April 945. Bird in hole.

1005. Bird still in hole: ♂. Watched for ½ hr, but the ♂ left after a brief time and noone returned to the hole. When I left, however, I flushed 2 birds from one of the trees off to the right (~North) of the granary.

1500. With a bird in the hole once again I went up to the hole and found 4 relatively fresh eggs!

27 April Watched incubation here from 920-1320 (4 hrs).

29 April Watched here from 940-1310 (3½ hrs). I saw at least 2 intruders, including an unbanded ♀ and ♀R-w/m #494 (!). (go to p. 6)

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Blomore Nest Record — Hastings Reservation

25 April 1800 — Hole opened: 4 eggs, marked and returned.

1 May 1800 — Still 4 eggs

27 May 1200 — 3 babies

	①584	②585	③586
27 May 1200	86.7 (86)	82.3 (82)	78.9 (78)
Devel. sequence (crown) →	1	1	3

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Blanone Hastings Reservation

(29 April) Neither hung around for more than a few minutes. ♂513 often appears to Waka to nobody here, however, creating the impression of a 3rd bird who doesn't materialize.

1 May 1800. Checked the hole, finding the 4 eggs still inside as before.

2 May Watched the nest here from 1345-1645. Nothing unusual going on - just incubation (mostly by the ♀).

3 May Watched here at dusk. First I went over to say hello to whoever was inside the hole, but noone looked out (I did hear weak rasps, however - the eggs have hatched). I watched until it was getting dark (~1925) at which point some fervent kamit-cuts were heard in the granary. At that point a bird looked out of the hole (!); with the flashlight I could tell it was the ♀. She then left, and the kamit-cutting bird (♂513) then went in the hole (and never even looked back out). Thus, the ♂ roosted here alone, just like he's supposed to do.

♂513 roosted in nest

18 May 1940. Tried but failed to get who roosted here tonight - all I could tell for sure was that it was only 1 bird.

27 May 1230. Banded the babies here, of whom there are 3 (way to go, guys!). They are now #584-586.

1600. ♀478 seen by Pam at the lower Barn (at Y) sitting around (!?)

8 July Walked by here twice in the late afternoon but failed to find anybody anywhere, except possibly way over past the far knoll where I had a brief glimpse at one bird flying off.

9 July 1650. Finally a bird in the granary: ♂ DB-Or/DB-Or #478.

21 July 1400. Went up to check the hole (just to make sure that the babies

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Bloomone — Hastings Reservation

(21 July) all made it out) and found no remains to speak of inside.

There are quite a few acorns left in the granary here, by the way.

1515. In passing I found ♂Or-1Or#513 sitting here near the granary.

21 September 1800. There are quite a few stores here, some of which are new but most of which appear to be old. Thus, this group does not appear to have run out of stores over the summer.

18 October 930. Watching. Flushed 2 ♂♂ from granary, inc. ①♂ M/Red#584. There are lots of stores here.

1030. Giving up. Noone back yet.

1140. On way back, 2 ♂♂ in granary again, ♂584 and ②♂ Red/M#513.

20 October 900. Watching granary from hide.

1000. Noone. Leering to look around.

1040. Back again, watching from a different spot.

1051. ①♂ Red/Red#513 upset over a Magpie in the large douglasii(?) roost tree.

1140. Pretty darn dull. Leaving.

21 October 1120. ♂ M/Red#584 in top of granary in passing.

23 October 1100. Watching.

1120. ♀M/ here (could be ♀478 or j586).

1145. 2 ♂♂ here briefly.

1150. ①♀M/DB-Or #478. ②♂Or/Or#513 hawking in granary.

1230. Hardly an inspired watch, but I am nonetheless convinced that j586 is certainly gone (not seen after banding) and that most likely j585 has not survived either.

20 November Purge: j585, 586: Not seen after banding on 27 May.

4 December 1630. Flushed 2 birds here and checked the granary, which is loaded!

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Gazebo — Hastings Reservation

19 January 1140. Watching. Several birds here in the storage area. ① ♀ M/Or-wh # 510.

1200. ② ♂ LP/LB # 517 with acorn.

1215. At least 4 birds in far perch tree: ♀510, ③ ♀ M/# 509, ④ ♂ M/Light?- # 516.

1240. Leaving. ♀485 probably here somewhere. ♂518 must surely be gone, however.

21 February 1630. Still stores here as well as lots of water. No birds seen in passing, however.

9 March 1555. ① ♂ LP # 517 here preening.

1605. ② ♀ La-Dk/Yel # 509 chasing a Band-tailed Pigeon out of the perch tree.

1611. Several birds in the far edge of the territory. ③ ♀ M/Yel- # 510.

1618. ! All 5 birds together at far edge: above 3 plus ④ ♂ DB-Yel/DB # 516 and ⑤ ♀ Mauve/Blk-wh(n) # 485. Group is entirely intact.

This is one where the 2 adult ♂♂ could be removed in order to see what happens with the 1st yr ♀♀.

10 March 1835. At least several of the birds roosted in the '79 nest hole this evening.

21 March Purge: ♂518. Not seen since I ambushed and caught him here on 24 July 1979. This calls into question my entire previous summation of this group (24 July 79). My new interpretation is that only 2 ♂♂ (now ♂516 and ♂517) joined the group in late April-early May, replacing ♂480 and (most likely) the prior unbanded ♂ here. I think that

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Gazebo — Hastings Reservation

(21 March) ♂518 never really lived here, but was most likely a relative of ♂♂516, 517 who merely came over to visit for a short time. This would explain why there was never an indication of more than 4 birds here before or even after I caught this bird, and why this bird split immediately after being caught (most likely to return home). Thus, I wish to purge the record of this bird almost entirely, except for having been banded here, as a temporary nonresident, on 24 July 79 and not having been seen after that date.

26 March 1520. Counted stores here for the first time: 1542, mainly in dead limbs in 3 nearby Valley Oaks. Given that some depletion has probably already occurred and the fact that this is my first count here, I would guess that 2000 holes is an estimate comparable to the others on the Reservation that I've made for analysis of territory quality.

31 March After an abortive attempt yesterday, we ambushed at the nest hole - where all 5 birds had roosted - and got only 2 - ♀509 and ♂517. (We'd been after both ♂♂ for a repeat of the Blomone manipulation). We marked their wings with dye and released them. This group can be our "control" for Blomone.

The activity here at dusk has been exciting - lots of pre-roost mounting and so forth. Also, 3 birds were acting pretty much like a pack - presumably the ♀ and the 2 ♂♂ - following each other in the manner of birds about to breed.

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Gazebo — Hastings Reservation

8 April — This evening I still failed at finding where the birds were roosting but did see the "pack of 3" just prior to going off to roost. Although we don't know for sure who they are, it makes sense that they are the 2 ad ♂♂ and ♀485. In any case, they are incredibly tight, all moving and flying in almost perfect synchrony.

11 April — 1050. Heard several birds over by the staging tree (next to Blue Oak roost tree) while off looking for holes here. When I wandered over I flushed ♂517 from the area.

18 April — 1815. Ron had seen birds roosting back in the Blue Oak but had also noticed a bird in the low Valley Oak hole near the '79 nest tree. So I checked it 1st with the peeper and (sure enough) found a nest with 5 eggs - all 1 of which was definitely a runt. Noone was in it when I came, however, so I doubt they're incubating yet. In any case, I'm going to watch to see what happens here tonight at dusk.

♂517 roosted in nest — 1910: ♂517 definitely spent the night in the nest.

19 April — 1000. Flushing a bird out of the hole, I went up and opened it, finding 6 eggs - 5 good ones and 1 runt! They were measured and returned by 1030.

25 April — 1715. Checked the hole: all 6 eggs still there.

2 May — 1700. Marked and weighed the babies, of whom there are 4. One of the eggs (the runt) didn't develope at all, but one other had a fully formed embryo in it which just didn't hatch.

15 May — 1930. Watched roosting here: ♂517 definitely roosted in the nest once again.

♂517 roosted

(go to p. 5)

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Gazebo Nest Record

18 April 1815

19 April 1000

25 April ~~8~~ 1715

2 May 1700

Hastings Reservation

Nest has 5 eggs: 4 normal and 1 runt.

Nest opened: 6 eggs!

① 25.8 × 17.9

② 26.3 × 17.5

③ 25.6 × 17.9

④ 24.5 × 17.6

⑤ 25.4 × 17.9 - Didn't hatch

⑥ 14.8 × 11.6 - Didn't hatch

Still 6 eggs

4 babies + 2 unhatched eggs

(the runt + #5 embryo developed but didn't pip)

		#569 ① Lg-Or	#570 ② Lt-wh(h)	#571 ③ wh-Red	#572 ④ NB
2 May	1700	14.4	12.9	16.5	7.4
22 May	1830	87.3 (78)	80.9 (78)	87.9 (84)	81.3 (64)
Devel. sequence (crown)		1	3	2	4

Melanerpes formicivorus

Gazebo — Hastings Reservation

22 May 1900. Despite the cold evening I came over and banded the 4 babies here, who are now #569-572.

24 May 1415. Walked around here, ~~not~~ seeing noone in any new holes (I didn't check the nest hole). However, strewn out below the hole in the lower Blue Oak that they were roosting in this spring was a cache of AW feathers, including numerous remiges, rectrices, and a few body feathers. On the limb above the hole (directly above it on the same limb) were numerous body feathers stuck here and there in the cracks. I looked all over for bands but couldn't find either bands or a body. However, somebody clearly met their end here fairly recently, either in or at the hole. Hopefully some remains may be in the hole (I'll try to check later) or at least maybe we can come across an obvious disappearance from the nest watches.

25 May 1000. Opened the roost hole in the Blue Oak where the feathers are, but there's noone inside.

26 May Gwen watched here today and reports the conspicuous absense of none other than ♀485, who is obviously the bird whose remains I found on the 24th. The other birds were feeding, however, and the babies will no doubt be alright.

7 June 1015. Saw ♂516 in passing, but otherwise nothing seemed to be going on here.

8 July 1600. Came by and walked around, flushing 3 birds, 2 of whom were ①j M/LB-Blk #571 and ②j wm/Or-wh #572. I wasn't able to locate a big cache of birds anywhere, however.

9 July 1500. Searching for birds here again. Flushed 2, one of whom was ①j572.

1535. Finally, another one: ②♂ DB-Wh/DB #516. ③j LB-DB/LB M/LB-DB #571. At least 3 babies are here for sure.

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Gazebo — Hastings Reservation

(9 July) 1625. Watched a ♀ in the granary area, but wasn't able to see who she was.

1645. Finally giving up. Birds are here (I've seen at least 5 today) but are scattered all over without any obvious unifying theme.

16 July Purge: ♀485. Last seen by Cowen at the nest on 21 May, remains found on 24 May → ~~Disappeared about~~ Found dead, died about 22 May.

21 July 1500. Walked around, flushing 4 birds including ♂ LP/M #517, who was sapsucking in a Blue Oak. The others were elusive, as usual.

Also, there are at least some stores remaining here as of the moment.

21 September 1720. There are some new stores here now already, but I suspect this group did run out sometime (early) in August.

There were also a lot of birds here (5+) but I was essentially unable to identify anybody.

13 October Purge: ♀510. Last seen here on 9 March; "all 5" birds still here at least as late as 31 March, but this bird had apparently disappeared by the time the nest here had begun on about 18 April (this bird was never seen at the nest nor seen subsequently). → Disappeared about 9 April ± 1 week.

18 October 1035. Several birds here. ① ♀ La-Da/Yel #509.

1040. ② ♀ Reddish/M ?? A new ♀ maybe?

1045. ③ ♂ LP/M #517.

1115. Giving up. Need to get a hide out here and watch.

21 October 930. Watching from hide.

1002. ① ♂ Yel-LB/ #569 (most likely). ② ♂ M LB-Blk/LB #571.

1020. ③ ♂ Wh/Red-Wh #572.

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Gazebo — Hastings Reservation

(21 October) 1030. ④ ♀ LA-DA/red #509. (All birds seen over in the Valley Oak perch tree along the fenceline; some activity in granary).

1037. ⑤ ♂ LP/LB #517. ⑥ ♂ red/DB #516.

1110. ⑦ ♀ mauve/M #570. Everyone's here who's supposed to be here, but there's still no sign of a new ♀.

1115. Leaving.

4 December 1600. Flushed 5-6 birds here in passing. They do have a good number of stores laid in.

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Gate — Hastings Reservation

23 February I'd pretty much given up on this group (which formed at the end of December) until today while counting stores at Westgate, at which time ♀ Blk-Yel/Blk #519 and then ②♂ ub. came and played around in the Gate sycamore for awhile. I then went over to investigate and found 425 acorns stored in the Gate tree! Thus, this group definitely exists, and will have to be watched soon to see if these 2 birds are all there are. Two other points of interest here:

1) The ~~'76 and~~ '77 nest tree (the willow) has finally fallen during the series of storms we've had recently. No bodies were inside.

2) There are still lots of acorns in at least 1 Live Oak by the creek here at the edge of the field. These Live Oaks are no doubt providing most of the acorns being stored here at this late date.

for prior information on this group, see Westgate notes.

21 March Changes: Purge ♂♂532, 533. Both these birds presumably founded this reincarnation of Gate near the end of December with ♀519; all 3 were caught on 1 Jan. 80. However, the 2 ♂♂ seem to have left nearly as precipitously as they arrived, and neither were here by 20 Jan → Dis. about 10 Jan. ± 1 week. Already by that time or shortly thereafter there was a new unbanded ♂ here, who will be added on 10 Jan. Presently, as far as I can tell, there is only a pair here (but I could be wrong).

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Gate — Hastings Reservation

24 April 930. Noone seen here; I also looked around for holes but didn't find any promising new ones.

25 April 1900. Walked around awhile at dusk but saw a big zero here. It may be time to watch awhile during the day here.

27 April 1700. Two birds seen here this afternoon in the granary and flying off more or less in the direction of Horsetail field. I better watch here one of these days.

7 May 1000. Watched from up on the side of Haystack Hill here for ½ hr, seeing both birds forage together and eventually go into a hole in the Gate sycamore (their nest). They're probably feeding, but we'll have to get up soon to find out for sure.

1400. Bird in hole again. Went up and opened it, however, to find 0 eggs thus far.

8 May 1230. Noone in the hole. (?)

9 May 1215. " " " " .

12 May 1500. Finally - ♀ in hole.

13 May 1630. ♂ in hole.

1700. Checked hole: 3 fresh eggs.

14 May Sandy watched here this evening and reports that there are 2 ♂♂ here instead of only 1!

19 May 1400, Checked the hole: 4 eggs.

26 May 1600. Called out at the hole but noone home (!?) Also, I only saw 2 birds together here, as usual - I do wonder whether Sandy was right or not in there being 3 birds here.

27 May 1800. Again noone in the nest. Looks bad for this nest.

28 May 1300. Checked hole: 2 babies (!) but no sign of unhatched eggs.

31 May 1610. Counted stores: 444. ♀ in hole; ♂ seen in the granary. (go to p. 4)

Melanerpes formicivorus

Gate Nest Record	Hastings Reservation
13 May 1700	3 fresh eggs.
19 May 1400	4 eggs. (these eggs have not been touched).
28 May 1300	2 babies; no sign of other 2 eggs.

	#600 ① wh-Red	② #601
28 May 1300	20.6	11.1
18 June 1700	91.5 (91)	85.7 (75)
22 June 1700	Fledged (see notes)	
24 June 1030		Tried to fledge (not quite successfully) See notes.

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Gate — Hastings Reservation

5 June 1550. Noone looked out when I called up to the nest.

6 June 1400. Went up and put my hand over the hole: both babies still sound as if they're hanging in there.

8 June 1700. Banded the babies, both of whom are fine, as #600 and #601.

19 June Set up an ambush at the nest hole last night but the damn thing failed to cover the hole when I pulled it this morning.

22 June Last night Gwen watched roosting here and saw 3 birds; thus it would appear that there are 2 ♂♂ here.

In the process of cutting limbs this afternoon in order to get some lines up here near the hole, one of the babies (#600, I trust) flew the coop.

24 June 900. 15' net up in the tree in front of the nest hole, where the 2nd baby is still looking out. ①♀$_{Bk\text{-}Yel/M}$ #519 is atop the tree.

915. ②♂$_{ub}$ came to chase out a Nuttall's Woodpecker from the granary.

925. ♀519 chasing an intruder. ♂ub here again. This ♂ has no mustache on his left side and the white bar in between the black portions of his face are quite wide (call this ♂840) (= ♂A) (see back).

1020. A 2nd ub ♂ (with a very reddish face) was here for 15s or so.

1030. Suddenly the baby had had enough, and fledged, flying out of the hole and turning around back toward the road. It looked like a good try, but I wasn't convinced it was successful. So I walked over and found him, j601, on the ground next to the road on the bank across from the sycamore. I took him, climbed back up the tree, stuck him in the hole, plugged him in until I could get back down, and then let him go. He stuck his head out immediately, but stayed in, at least until I walked out of sight. So much for mist-netting here for the time being.

♂A (24 June)

Melanerpes formicivorus

Gate — Hastings Reservation

30 June — Add: 2nd unbanded ♂, Moved here (age unknown) about 10 Jan. 1980, presumably with the other ♂.

3 July — 2000. Watched roosting here and saw 2 birds (only), both of whom roosted in the Gate sycamore near (but not in) the nest hole.

7 July — Today while running out by the gate Gwen found the body of j600 dead along the road over by Westgate, apparently the victim of a car. The body was pretty fresh. → j600, Dead of unnatural causes 6 July 1980. A sad end for the 600th bird!

13 July — 530. Ambushed at the hole below the nest hole in the Sycamore, but only nabbed ♀519. I have no idea where everyone else is roosting!

23 July — 530. Another ambush at the same hole nabbed both unbanded adult ♂♂ - now ♂626 and ♂627. ♂626 had a short wing and bill and very well may have been a 1st yr bird this year. ♂627 was larger and may be a year older. This group is now entirely banded!

1 August — 1400. Counted stores: 335.

5 October — While checking up on oak trees we passed here today and I found no stores (0). Thus, the birds did run out here and haven't stored any new ones yet.

17 November — 955. Atop the Gate sycamore displacing an intruder: ♂ Yel/DB #627. ♀ Blk-Yel/Blk #519. (also displaced an [the?] intruder.)

1020. Counted stores: 502.

1045. Wandering back along the path in Squirrenail flat I found a Valley oak with all 4 birds in it! Identified were ♂ Or/DB-Wh(a) #626

Melanerpes formicivorus

Gate Hastings Reservation

(17 November) and ♂♀ LG/Yel #601. (I'm pretty sure but not positive the baby was molting to ♀).

Melanerpes formicivorus

Westgate — Hastings Reservation

1 January 700. As my first act of 1980 I ambushed here at the willow nest hole (nest site back in 1977) and got all 3 birds (who roosted here last night). They comprised 2 (!) unbanded ♂♂ (now ♂532 and ♂533) and ♀519, late of Valhalla. ♂58 apparently roosted elsewhere. This clearly suggests that at least one new unbanded ♂ joined this group along with ♀519; whether the other ♂ is the same one as here allalong or not is of course indeterminalde. Both ♂♂ were adults.

8 January I haven't watched here again to confirm the necessary changes, but here they are anyway:

1) ♀ unbanded. Last seen here 8 November, presumably here until or just prior to the revolution on 28 December. (No sign of revolution activity on 26 December). → Disappeared about 27 December.

2) ♀519. Formerly of Valhalla, this bird took over here during the revolution → Moved as Adult ~~♀XXX~~ 28 December

3) ♂ unbanded. With no evidence to the contrary (or otherwise) I have to assume ~~this bird~~ that one of the unbanded ♂♂ here after the revolution is the same individual as was here on 26 December. Arbitrarily this bird becomes ♂532, banded as an adult on 1 Jan. 1980

4) ♂533. This 2nd (previously unbanded) ♂ must have joined the group during the revolution, there has not been any evidence for 2 unbanded ♂♂ here (or 4 birds) in ages. ~~The big question is whether~~ It is possible that he's been hiding out around here, but I doubt it.

Melanerpes formicivorus

Westgate Hastings Reservation

(8 January) Thus, whether or not ♂532 is new, it would appear as though at least 1 new ♂ joined this group while its prior ♂ (♂58) remains intact (though crippled). → Moved here as adult 28 December. [Note that I'm skipping the intermediate ~~she~~ period when this bird was unbanded - a minor discrepancy, but still one which should be kept in mind.]

20 January 1450. Garricks, chases, and generally high activity here among at least several birds. Watching. ① ♀ub. At least 1 ♀ Garricking almost continuously. Activity all concentrated in Gate Sycamore over to the flat across the creek; nothing in Wgate tree. ② ♀ BlK-Yel/M #519 here, also garricking. Looks like her position may be on the line. Two birds in particular (the ♀♀?) are really after each other.

1508. Maybe not. 2 ub ♂♂ together at one end of the tree. ♀519 here also. Still many garricks by somebody. Some drumming. A ♀ is doing some of the chasing. I did see a banded ♂ (probably ♂532) very briefly.

1514. ♀519 is one of the bird garricking and may be doing most of the chasing.

1520. ③ ♂ no leg #58 is over eating an acorn in the Wgate Sycamore by himself; as before, not taking part in things.

1525. All much quieter now.

1535. This time it looked like ♀ub was doing the chasing (!). Now ♀ub (garricking) and ♂ub sitting together in Gate sycamore.

1539. ♀ub is the chaser. I can't confirm that ♀519 is the chasee, though. Still no stores here. Leaving for now. Try again tomorrow, for sure.

Melanerpes formicivorus

Westgate — Hastings Reservation

22 January 1050. Watching. ①♀ Bk-Yel/Blk #519 in Gate sycamore. No undue activity here.

1052. Over by the WGate sycamore, however, is ②♀ unbanded. With a Live Oak acorn she pilfered from the WGate tree.

1100. There's at least 1 ♀ and ③♂ unbanded hanging out in the Live Oak nest tree. Some of the Live Oaks back here are still loaded with acorns, by the way.

1118. ♂ unb. in Gate tree.

1120. Leaving. Well, whatever's going on here, it's clear that my previous simplistic interpretation of events here is just not going to do the trick. Either there's been considerable additional turnover since the ambush on 1 Jan., and/or a 2nd possibility - at least in part - is that the birds here at Gate are in fact separate from ♂58, the unbanded ♀, and possibly the same old unbanded ♂, who may still be as before only back restricted to WGate. In other words, this territory may have split once again. This interpretation doesn't explain everything, but it is consistent with the general pattern of observations back here; e.g. that ♀519 is never in WGate and ♂58 is never in Gate, plus the persistence of an ub ♀ at WGate, and so on. If this interpretation holds up, everything will be definitely in for more rearranging soon.

1135. I'm almost convinced - in the trees beyond WGate Syc. by Hallisey's were 3 birds: ①♂58, ②♀ub, and a 3rd bird. This could very well still be the intact WGate group.

26 January Inasmuch as the above scenario makes much better sense at this point than any alternative I can think of I'm making the following changes in the records:

Melanerpes formicivorus

Westgate Hastings Reservation

(26 January) 1) the former unbanded ♂ at Westgate is restored.
2) the former unbanded ♀ at Westgate is restored.
3) ♂532, ♂533, and ♀519 are all assumed to have founded Gate on 28 December 1979. Subsequently, of course, it would appear as though the ♂♂ have turned over already. In any case, for the moment I'm going to give both these groups a new lease on life.

2 February I've now been past here several times in the last week or so and have watched here twice at dusk and never seen a thing (not quite true - Ron saw 1 bird roost in Weste sycamore). Things are suspiciously slow here. Today I came out at 1415 to look around and get a feel for what's up. Though I was only here ~½ hour, the situation appears fairly clear: the 3 Westgate birds are, as before, all here and spending their time from about ½ way between the Gate and Weste trees to the Sycamores at Haliseys. I identified ♂58 and ♂ub and saw the 3rd bird, a ♀. However, (and this is a feeling I've had from being here at dusk also), I am fairly sure that the Gate birds, from ♀519 on down, have abandoned altogether, and that there are no longer birds at Gate at all. There is certainly no activity at Gate and no stores have been put in there. The only sign of funny business I saw was a 2nd unbanded ♂ who was in the area between the granaries and who was being displaced by another ub ♂ (presumably the Weste bird). Thus, Gate appears to have disbanded as precipitously as it started. Obviously I now need to find out if ♀519 returns to Valhalla!

Melanerpes formicivorus

Westgate Hastings Reservation

23 February 1420. Counted stores: 860.
Flushed 2 birds from the area only - ♂58 plus 1 other. I did also see birds at Gate who are not the WGate birds. Thus, there would appear to be 2 groups here still after all.
Later I also saw a ♀ here, but I couldn't get her legs.

24 April 1030. Two birds flushed from one of Maggie's Sycamores; noone else seen.

25 April 1855. Bird roosting in the dead limb facing the road in the Westgate tree.

30 April 600. Bird in the 'roost' hole in WGate tree, plus (at least) a 2nd bird in the area. The only big question is, how am I going to get to it?

7 May 1150. Looked around here for an hour or so. Two birds were here, occasionally flying up across the Road onto the side of ARF. I was unable to get any good leads as to a hole, however.

8 May 900. Both birds seen here: ♀ub and ♂58. Both were gleaning from the Valley Oak off on the side of ARF.

12 May 1500. 2 birds seen here as usual, but no obvious sign of a nest.

18 May 1200. Watched here from the side of Haystack Hill, seeing both birds and following them the best I could as they wandered all over, particularly off above Corral field. However, I was unable to find any reasonable sign of a nest, or of feeding of young or anything. The ♀ did appear to go to the hole in the WGate Sycamore one, but that was it.

26 May 1600. Looked all over for 1½ hrs or so but once again failed to find anything promising. Both birds were fooling around all over, as usual.

Melanerpes formicivorus

Westgate — Hastings Reservation

27 May 1530-1800. Searched and watched for a nest here. If this group does have a nest, which I consider likely but by no means certain at this point, they are managing to elude my most experienced and discriminating attempts to find it in a way matched by few other groups in recent years.

31 May 1600. At long last - a bird was looking out of the hole in the Valley Oak back by the Corral. Their nest, no doubt.

1 June 1400. Checked and opened the hole (nobody was in it) where there are 3 fresh eggs! (Eggs were marked)

3 June ~~1400~~. Flushing a bird from the hole, there are ~~3~~ 5 eggs here.

5 June 1500. Still the same 5 eggs here, warm.

Counted stores: 873.

14 June 1000. Came over to begin setting up nets. Flushing the ♀ out of the hole, it was clear the babies had hatched.

1430. Before putting up a net I checked the hole: 4 newly hatched babies plus 1 egg (#4), which is opaque and will probably hatch yet.

15 June 1630. After waiting ½ hr or so I got the ♀ in the hole by trapping her with my long pole put in front of the entrance. I quickly banded her as ♀599. In the process I also checked the nest, where all 5 eggs have hatched and all 5 babies are present.

17 June 1600. Weighed the babies, of whom 4 are still around. Also moved the bar I put up the evening of the 15th to help ♂058 make it into the hole with his stumpy leg.

22 June Gwen watched here this evening and reported ♂058 unable to make it into the hole to roost, despite numerous attempts. So I

Melanerpes formicivorus

Westgate Nest Record

1 June 1400

3 June 1330

5 June 1900

14 June 1430

15 June 1630

18 June 1500

Hastings Reservation

Hole opened: 3 fresh eggs

5 eggs: ① 27.3 × 20.4
② 27.0 × 19.8
③ 26.6 × 20.8
laid 2-3 June: ④ 27.6 × 19.7
⑤ 27.0 × 19.4

Still 5 eggs, warm

4 babies + 1 unhatched egg (#4, opaque)

5 babies

4 babies

	① Wh	② Red-Wh	③ DP-DB	④
18 June 1500	27.0	24.7	21.2	14.7
22 June 2000	All 4 still here.			
23 June 450		Died overnight (see notes) wt: 39.3 gm.		
23 June 1000	Dead 39.2		Dead 32.1	Taken home

Nest failed (see notes).

Melanerpes formicivorus

Westgate Hastings Reservation

(22 June) trudged on out here (at about 2020) and opened the hole, finding all 4 babies (who looked in good shape) plus noone else. Since they're a little young for this kind of neglect I brought them home and kept them warm all night.

23 June 450. Returned the babies, except for Red-Wh, who unaccountably had some internal abdominal hemoraging last night and died.

1000. Came over here to check, finding the 2 big babies dead and the runt ~~natta~~ fading. I removed all 3, taking the runt home in an attempt to ~~resuit~~ resuscitate him.

I am somewhat baffled as to why they should suddenly abandon their nest altogether. In any case, I think this group should be eliminated from all reproductive success calculations, since it ~~wastt~~ seems clear that the lack of ♂58's leg, rather than any other factor, was the most important cause of the failure here.

30 June Purge: ♂unbanded. Last seen 2 Feb. 1980, gone by 23 Feb-> Disappeared about 12 Feb. ± 2 wks.

14 July 720. ♂RLOnly #58 hawking from the main sycamore.

1 August 1415. Counted stores: 530.

5 October There are still lots of (old) acorns here; I didn't count them today, however.

8 October 1700. Counted stores: 197; all were old as far as I could tell.

11 October Saw ♂no leg #58 today on my way up to the Arnold.

17 November 930. Saw ♂58 plus a 2nd bird here while counting stores: 462. I don't know what's wrong here - they have fewer stores now than they did in August! (There are plenty of acorns out here, however).

945. The 2nd bird is a ♀ and is very skittish. I'm now watching

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Westgate Hastings Reservation

(17 November) 948. Here she is: ♀ Ret/ / LB-Ret # 599.

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Pipeline — Hastings Reservation

14 July 1545. For the first time this year I passed by and saw a bird here, who turned out to be an unbanded ♂ just sitting in the granary. (Ron has seen birds here several times, however). After identifying him he flew off back towards Poison Oak Hill.

5 October It seemed like there was a lot of activity over this way today but when I came over and checked there was no sign of life.

Melanerpes formicivorus

Road 1 — Hastings Reservation

8 January — Purge: ♂486. Last seen 21 August by Ron Mumme, gone by 5 November → Disappeared about 28 Sept. ± 1 Month

(see 20 Jan below)

Add: ♀383. Formerly of Road 3; last seen there on 25 August (caught in ambush). Not seen there during nest watches of 12-30 October. First seen at Road 4 on 5 November; → Moved here as Adult 18 Sept. (± 2 weeks)

20 January — 1130. Watching from hide.

1148. ① ♀ Oak-Blk/Yel #383 in Sycamore at Road briefly.

1203. ② ♂ DB/Red-Wh #486 (!) arrived in granary with a (probably newly harvested) Live Oak acorn. He's here after all!

1205. ♀383 storing in the sycamore joined by ③ ♂ Or/DB-Light #294.

1255. Got her: ④ ♀ DB-Wh(n)/Wh #269 in Sycamore over by nest tree. Very little activity up around the granary today, but everyone here at least. Leaving.

2 February — 1535. ① ♀ DB-Wh(n)/Wh #269 plus a 2nd bird in the sycamores by the '79 nest area.

23 February — 1300. Counted stores: Main Tree 1236 } 2059
Sycs, etc.: 823 } (Includes trees by the creek as well as the perch sycamore along the road).

Birds were here, but hiding for the most part.

1340. ① ♀ Yel-DG/Yel ♂ Yel-DG/M #383, ② ♀ M/Wh-DB #269, and ③ ♂ Or/DK-Yel #294 all up in the perch area of Valhalla up above the road on the ARF side hawking.

18 April — 1600. Checked the nest (not the same hole as last year - but still a very difficult one ~3-4' lower) and found 2 fresh eggs. Ron's been watching here lately, so see his notes for more details. I also sawed open the hole to facilitate things later on. (go to p. 3)

Melanerpes formicivorus

Road 1 Nest Record	Hastings Reservation
18 April 1600	2 eggs, fresh (marked) (Hole opened).
19 April 1400	3 eggs: 2 new ones + #2 from yesterday: See notes
24 April 1430	8 eggs, inc. all 3 from 19 April: [all 24 April]
[24 April]	① 24.8 × 20.7 Didn't hatch — ⑤ 25.0 × 20.0 Didn't hatch
(18 April)	② 25.3 × 20.1 — ⑥ 24.4 × 20.6
(19 April)	③ 25.3 × 20.0 Didn't hatch — ⑦ 25.2 × 19.5 Didn't hatch
(")	④ 24.3 × 20.5 — ⑧ 25.5 × 19.9

4 May 1530 — 4 babies and 4 unhatched eggs (marked above)

(These 3 unmarked)

	577 ① R-W(L)	579 ② [illegible]	578 ③ [illegible]	④ 580
4 May 1530	12.7 ↓ same bird	8.6 + not necessarily the same bird both times	12.2	7.4
25 May 1200	85.6 (85)	76.3 (75)	83.5 (86)	71.6 (63)
Devel. sequence (crown) →	1	3	2	4

Melanerpes formicivorus

Road 1 — Hastings Reservation

19 April — Lots of news from here: in brief, Ron saw a bird, apparently ♀383, removing an egg from the nest this morning; checking the nest this afternoon, I found only 1 of the eggs from yesterday plus 2 new eggs! The possible implications of this are almost mind boggling! In any case, see Ron's notes for details. Although we don't know everything we'd like to, the implications include: (1) Egg-~~dumping~~ tossing does occur, even among sisters (2) ♀383 took out ♀269's eggs prior to the nesting of the former (?) This is opposite to the Ani situation. (3) This is why 2 ♀ sets are smaller than 2×1 ♀ sets. (4) ~~Dumping~~ Tossing is cryptic and eggs do not end up near the ♀ nest.

24 April — 1430. Now that the rain has stopped and the birds here are incubating, we went back up to find 8 eggs, a new record. All 3 of the eggs still marked on 19 April are still here as well. Also, the eggs broke down fairly well into 2 size classes, with the 1st ♀ having 5 eggs and the 2nd 3.

4 May — 1530. Went up to check the nest, finding 4 babies and 4 (!) unhatched eggs. The babies were young, but were marked with dye and returned.

12 May — 1920. Watched roosting here, but needed a decent flashlight to identify who did it. Unfortunately, I didn't have one.

14 May — 1930. After 2 failures in a row, I got the bird who roosted here: ♂486. (♂486 roosted)

25 May — 1200. Went up and banded the babies - all 4 of whom are fine.

Melanerpes formicivorus

Road 1 — Hastings Reservation

(25 May) They are now #577 to 580. The hole was fun to get to, as always.

6 June #1715. Counted stores: Main Valley Oak: 572; Peripheral areas: 263 } 835. Doing relatively quite well.

4 August 1115. Counted stores: Main Valley Oak: 82; Peripheral areas: 130 } 212

25 August While we were all gone to the AOU meetings in Ft. Collins somebody managed to set fire to the whole of Poison Oak Hill; one way or the other the nest tree here (used 1979, 1980) did not survive.

Ron also reports these birds to be out of stores.

5 October Still no stores here today, although the acorns are just about harvestable.

28 November 1250. Counted stores: Main tree: 2951; Sycamore at road: 493; Others: 36 } 3480

Saw ♀269 in the process of counting.

These birds lost perhaps 300 holes (at least) in the fire of 10 Aug, since the crews cut down one of the peripheral sycamores they had been using down by the creek. Nonetheless, these birds are still in pretty good shape.

Melanerpes formicivorus

Warp 5 Hastings Reservation

8 May 1215. Checked around here, finding lots of nice looking trees, but no promising holes. However, there are stores left here, so they no doubt have a nest somewhere.

9 May 1200. Walked through here, seeing one bird in the granary fly off around the hillside (toward Gate). But otherwise we found no new good looking ~~■~~ holes.

17 May 1030. Checked everything I could find here with notably little success. I did recall and check a nice hole in a Black Oak on the ridge toward Valhalla, but I didn't see anything terribly promising there.

4 July Coming up here to check roosting, we flushed 3 birds from the hole in the Black Oak, at least one of whom was a baby from the call it made (Ron had seen fledglings here following adults awhile back). Eventually I may get these birds. (Ron is pretty sure there are 2♂♂ and 1♀ here, all unbanded).

23 July Set up an ambush here (at the lower hole in the Black Oak). Ron watched this evening and reported a total of 6 birds (!), 4 of whom roosted in the hole. So, apparently this group consists of 2 adult ♂♂, 1 adult ♀, plus 3 babies from this year.

24 July 630. The ambush was a success, netting 2 adult ♂♂ (♂628 and ♂630) an adult ♀ (♀629) and 1 baby, who had just started her post-juvenal molt and is going to turn into a ♀ (♀631). Now all we have to do is find their other hole and get the other 2 babies! [3! see below: apparently they fledged ?4 here!]

28 December 900. An ambush at the same hole as before yielded another 4 birds, only one of which (♀629) was ~~■~~banded! The others (1♀ and 2♂♂) were all apparent 1st-yr (by feather wear primarily) and are now #635-635.

Melanerpes formicivorus

Valhalla — Hastings Reservation

8 January — Purge: ♀519. Moved to watched group on 28 December 1979. At present, the status of this group is unclear. (See Westgate notes for more information on ♀519)

20 January — 1120. One bird in nest tree began to harrit-cut vigorously when I came up here: ♂ Ca/yel #501 from Finch (!) The bird continued to display for several minutes and then finally left. Meanwhile, there are still stores here, but there was no sign of anyone else. ♂222 is most likely gone, I'd say.

2 February — 1445. There are still some stores here - perhaps 100 or so. However, I saw no sign of anyone in passing, and I have to wonder ~~whether~~ whether or not anyone lives here any more or not.

23 February — 1315. Stores are diminishing rapidly here - there are possibly 25 or so more left. Meanwhile, there were several birds up in the trees where the Valhalla birds tended to hang out. These birds were mostly hawking, and turned out to be the R1 birds (3 of them at least).

♂222 is surely gone, and this territory would appear to be up for grabs at the moment.

21 March — Purge: ♂222. Last seen here, with ♀519, on 5 Nov. 79. On 18 Dec. I flushed 1 bird and found nearly 400 acorns here, but by 28 Dec. ♀519 ~~was~~ had departed for Gate. Unfortunately I have no idea whether the ♂ disappeared, followed by the ♀ abandoning, or the ♀ abandoned, followed by the ♂ abandoning. Since noone was here by 20 Jan, I will assume the former; thus → Disappeared about 1 Dec. 1979 ± 2 wks. ♀519 ~~is~~ should then be changed to Abandoned about [seen again]. This territory is presently up for grabs.

Melanerpes formicivorus

	Valhalla	Hastings Reservation
10 April	930. Nobody in the holes up here.	
26 April	1245. Nobody in the holes here or seen in passing.	
6 June	1715. " " " "	
28 November	No stores here or sign of habitation by Wickers.	

Melanerpes formicivorus

Finch — Hastings Reservation

8 January — Purege: j502. Last seen 22 August (by Ron Mumme); gone by about 17 September → Disappeared about 4 Sept. ± 2 weeks.

20 January — 1130. ♂501 up at Valhalla by himself. See Valhalla notes.

9 February — 1130. Watching; my 2nd yr captive ♀ is up in a cage in the Valley Oak granary.

1207. ①♂ DP/LP #66 here looking the captive over. ②♀ Tan/Or-LG #293 over in the sycamore nest tree. ③♂ Tan-Red/T-R #282 there also.

1211. ♂66 back in Valley Oak, but well away from the captive now.

1296. ♀293 now suddenly upset. karrit-cutting near the captive. ♂282 here, also ④♂ Yel/M #501. ♀293's calling attracted the other birds, at least temporarily.

1250. Birds have all left from the Valley Oak now. Even ♀293, though more interested than anyone else, isn't very worried, apparently.

The birds are working stores over in the Sycamore nest tree.

1300. Leaving. ♀293 certainly showed the most interest, but noone really got excited here.

23 February — 1230. Counted stores:

Valley Oak	1256	2198.
Main Sycamore	486	
Other :	456	

Also flushed ♂66 plus 2-3 others from the area.

14 March — 1100. Watching.

1112. ①♀ Red/LG #500 sitting atop Sycamore nest tree. ②♂ Red/LB-Wh #66 in VO granary. ③♀ M/Or-LG #293. ④♂ LG-Blk/LG-Blk #63; ⑤♂ M/Red-Tan #282

1140. ⑥♂ Yel/M #501.

1200. Leaving. All here except for ♂499, who is most likely gone. Others hanging out together and eating lots of acorns.

Melanerpes formicivorus

Finch — Hastings Reservation

21 March — Purge: 3499. Last seen 10 Oct. 79. Gone by 17 December → Dis. about 13 Nov. ± 1 month.

10 April — Nobody in any holes here at 910

16 April — 1400. Went up and opened the nest hole (in the sycamore by the bridge) where there are 6 (!) eggs.

18 April — 1600. Checked the nest - still 6 eggs.

26 April — 1700. Checked the nest - 4 babies plus 2 unhatched eggs. The babies were measured, banded, and returned.

13 May — 1500. Checked the holes - no sign of a second nest so far.

14 May — 1600. Banded and bled the babies, all 4 of whom are fine (which is more than I can say for the weather, which is rotten). They are #540-543.

17 May — 1700. Noone in any new holes.

22 May — 1115. " " " " "

2 June — 1400. Checked the nest hole (where Ron had seen a bird looking out) to find 5 eggs.

6 June — 1415. Checked the hole: still 5 eggs.

1650. Counted stores: Valley Oak: 345
Main Sycamore: 169
Misc. syc: 166
} 680. Also decreased markedly.

18 June — 1800. Checked the babies, of whom 4 have made it thus far. No other sign of the 5th

3 July — 1500. Banded and bled the babies, who are now #613-616. They were all in good shape - a lot of ectoparasites, but ok anyway.

14 July — Sandy came back from a nestwatch here at about 1300 with a bagful of feathers, which were found in 2 distinct piles right below the roost holes facing the road in the Sycamore granary (and this year's nest tree). They were (go to p. 4)

Melanerpes formicivorus

Finch Nest Record — Hastings Reservation

16 April 1400 — Opened nest: 6 eggs (!)

① 26.2 × 20.0

② 26.6 × 20.1 - addled

③ 27.0 × 20.0

④ 26.6 × 20.4

⑤ 26.1 × 19.1 - addled

⑥ 26.6 × 19.4

18 April 1630 — Still 6 eggs.

26 April 1700 — 4 babies, 2 unhatched eggs

	#540 ① Or-Lg	#541 ② DB-Mauve	#542 ③ LB-Yel	#543 ④ No Band
26 April 1700	27.2 (13) wing	25.0 (12.1)	23.5 (11.8)	13.8 (9.5)
14 May 1630 (wt, FWL)	85.2 (94)	77.1 (91)	86.1 (90)	73.3 (76)
Develop. sequence (crown, ~~wing~~) →	3	1 (1-3 close)	2	4

2 June 1400 — Hole checked: 5 eggs (same hole)

① 27.5 × 20.9 ④ 27.2 × 20.6

② 26.9 × 20.6 ⑤ 27.8 × 20.2

③ 27.2 × 20.8

6 June 1415 — Still 5 eggs

18 June 1800 — 4 babies; no unhatched eggs

	#613 ① Yel-Blk	#614 ② LP-DB	#615 ③ Or-LB	#616 ④
18 June 1800	33.1 gm	30.8	36.2	21.0
3 July 1500 (uchord)	82.0 gm (80)	72.5 (80)	78.8 (79)	69.0 (59)
Devel. sequence → (crown)	3	1 (1-3 all very close)	2	4 (A distant 4th)

Melanerpes formicivorus

Finch — Hastings Reservation

(14 July) definitely the remains of 2 individuals: the first was a newly fledged baby whose 1° were still actively growing out. This is also supported by Sandy's nest watch, where she saw 2 babies looking out of the hole whereas during her last nest watch there were 3 (this was on the 12th). The most developed of the babies (j614?) was the one missing today. Since they were banded 10 days ago, fledging was likely, and I presume this to be one of their babies from the 2nd nest (3 were very close in development, so we'll have to wait to ~~[illegible]~~ be sure about who it is).

(j614 seen 15 July)

As for the 2nd bird, it was not a young individual. Primaries 6-9 were intact from the right wing; all 4 were fresh (newly molted?) and the total length of the 6th was 133 mm, putting the bird well above the range of 1st yr individuals (~125 mm) and even longer than the average adult (~129 mm). Furthermore, the 1° were blunt, further suggesting an adult. During her nest watch, Sandy saw ①♂63, ②♂66, ③♂282, ④♀500, and ⑤j540; ~~[illegible]~~ we went back out at about 1500 and after looking unsuccessfully for more remains watched for ~20 m and saw, in addition to the above 5 birds, ⑥j541 and ⑦j543. Thus, the only possibilities are ♂501, j542, and ♀293. The 1st is unlikely simply because he hasn't been seen at all around here since May (at least at the nest). The juv. is unlikely because he really couldn't have so long a set of 1° this early. Thus, the most likely victim, supported by her absence

Melanerpes formicivorus

Finch Hastings Reservation

(14 July) from the area, is ♀293. Another bit of indirect evidence is Sandy's observation that ♂282 was unaccountably upset today, karrit-cutting and generally carrying on in an unwholesome manner as though someone near and dear to him were missing.

I should add the one bit of contradictory evidence concerning the identity of this bird, which is her molt. All 4 of the primaries on the right wing, #6-9, were brand new and newly molted. This is very early for adults (who should only be about ½ way through their 1° by now - see ♂123, ♀621 caught this morning and ♀519 caught yesterday) and downright amazing, I would think, for a ♀ still busy tending her second nest. Either this girl's molt was unaccountably early - essentially concurrent with her 2nd nest - or a bird more likely to molt earlier is involved. Presumably this would be a 2nd yr bird undergoing his/her 1st contour feather molt, which in this case would have to mean ♂501. Thus, final determination will have to wait for some further watches at this group.

A second devious question is: how did they die? This is even worse than who they are. The situation contains all the same contradictions involved in so many other apparent depredations of Acorn Wdpkrs (eg. ♀485 at Gazebo). Cogent features • include:

1) Feathers in 2 distinct piles on ground, plucked from bodies which were taken elsewhere.

2) Piles located almost directly below active roost holes (they have definitely been roosting here [fide Sandy]).

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Finch — Hastings Reservation

(14 July) 3) Two birds taken at once, apparently from the same place, and eaten simultaneously. (Sandy's last watch on 12 July proves all to be well then).

My (wild) guess is that something nailed these birds in the roost hole at night, took them each down to the ground to pluck, etc., and ate them separately, possibly even entering the hole for the 1st and then returning for the 2nd. Clearly this must have been some nocturnal predatory bird, e.g. an Owl. The only owl that could reasonably be expected to overpower an Acorn Woodpecker, however, is a Screech Owl, as Pigmy Owls can't weigh much more than ⅓ that of an adult AW. All this seems vaguely improbable, but ~~what~~ else could ~~so~~ get 2 birds from the same place (other than by entering a roost hole) and take them individually to the ground to pluck? (The feathers could not have been tossed from the air or the roost hole, as they were too orderly). Thus the mysteries of nocturnal predation deepen.

15 July 930. Watching. ① ♀ Red/LG #500. ② j DG-Yel/Maroon #541. ③ j DR/DR #543; ④ ♂ Red/LB-Wh #66.

940. A newly-fledged baby ⑤ j DG-BP(n)/N #614.

1005. He's still here: ⑥ ♂ LG/Yel #501 ~~in~~ leaving Sycamore. ⑦ ♂ Red/Tan #282.

1025. The final baby is here, also: ⑧ j LB-Or/LB #542.

1030 Leaving. That about wraps up the alternatives: ♀293 is surely the adult victim from the ~~massacre~~ described above. There is still a baby ~~squawk~~ squawking from the nest, also.

Purge: ♀293. Found dead (predated). Died either 12 or 13 July.

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Finch — Hastings Reservation

22 July — Ron watched here today and saw everyone - including all the babies - except j615, who thus is pegged as the baby who got nabbed along with the ♀ last week → j615 Found dead, died about 12 July. This bird did fledge, at least.

4 August — 1050. Several Carricks here: could be something up re the replacement of the ♀.

1100. A chase seen and more Carricking, but I wasn't able to pin down the intruder(s). I did see ① j613, ② ♂066, ③ ♂282, and ④ ♀500.

1120. ⑤ j WR-Red/WR-Red #616 seen.

1135. Counted stores: Valley Oak: 10; Sycamore Canyon: 90; Other: 0 } 100.

Definitely hitting the end here.

5 August — ♂63 and j543 seen together up at Lambert!

25 August — Sometime between ~~2000~~ 10 Aug. and 4 August the dead part of the old Sycamore nest tree here fell (and subsequently burned in the fire on 10 August) taking with it the 1975 thru 1979 nest holes.

This afternoon on the way up to Poison Oak Hill Ron and I flushed at least 6 birds just along the ridge below POHill #1 who were from Finch. Identified were ① ♀ Red/LG #500, ② ♂ LG/Yel #501, and ③ ♂ LB-Or/LB #542 (sex of last bird not positive).

These birds are also out of stores now.

5 October — Still no stores here yet.

28 November — 1230. Saw ♂ Yel/M #501 while out here counting stores. Also, I should record that the birds here did lose some storage

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Finch Hastings Reservation

(28 November) holes in the 10 Aug. fire: they lost one limb in the Valley Oak granary with perhaps 100 holes and ~~the~~ all the holes that had been in the dead top of the old Sycamore nest tree, which I'd estimate at ~250 holes. Thus, this group lost perhaps 350 holes in the fire.

As for stores: Valley Oak: 1535
Sycamore: 808
Misc: 140
} 2483.

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Road 3 Hastings Reservation

8 January Purge: ♀383. Moved to watched group [Road 1] about 18 Sept. 1979 ± 2 weeks (see Road 1 notes).

j490. Last seen 18 July by Ron Mumme, gone by 25 August → Disappeared about 6 August ± 2 weeks

j491. Caught in ambush 25 August, gone by 12 October (this bird never seen at the nest) → Disappeared about 18 September ± 2 weeks.

20 January 945. Watching.

952. ① ♀ DB/LP-LB# 265 plus 2nd bird in perch tree across the creek.

1002. ② ♂ M/Blk-WH# 184 in VO granary

1008. A bird just zipped into the spring '79 nest hole (?!).

1010. ③ ♂ or/LB# 68 over in perch tree across creek.

1020. All 3 adults together in sycamore. No sign of anyone else.

* 1042. Still the same 3 birds. They are actually still harvesting live oak acorns and bringing them to the granary to store. I've seen at least 6-8 trips by either ♂184 and/or ♀265.

1045. Leaving. Looks as though all the youngsters, including the babies, have either moved or died.

22 January 1005. Here for a 2nd check. ① ♂ or/LB# 68 in the old VO granary with a ♀.

1011. ② ♂ M# 184 just in with a newly harvested acorn.

1013. ③ ♀ DB/Yel-LB# 265. All 3 birds busy harvesting and storing acorns.

1035. Leaving. Still no sign of any babies.

23 February 1150. Counted stores: Valley Oak 905 } 1523.
Sycamore: 618 }

One bird seen in the area.

7 April 1500. Checked the '79 spring nesthole after Ron noted birds

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Road 3 — Hastings Reservation

(7 April) going into it this morning - but nothing yet.

9 April Ron went back up to the hole again, looked a little more carefully, and found 5 eggs!

10 April Sandy watched here 900-1200. Then, at 1700, Ron and I came back out and opened the hole so as to mark and measure the eggs (there are still 5).

19 April 1915. Tonight, watching the nest, ♂184 ~~spent~~ roosted by himself.

♂184 roosted

24 April 1530. Checked the nest to weigh and mark the babies, of whom there are 4: 3 in good shape and 1 not so hot. 1 egg was addled and still in the nest as well. They were all marked and returned by 1550.

♂184 roosted → 1912. ♂184 roosted in the nest again tonight.

7 May 1930. ♂184 definitely roosted in the nest again tonight.

13 May 1530. Banded the babies, who are now #537-539 (only 3 made it). This group does have stores left, by the way (lots).

These babies may very well be the earliest on record!

17 May 1700. Noone in any new holes here.

21 May The babies had fledged by this morning! (Sandy's report).

22 May 1115. Went up and checked the nest hole - where everyone had indeed fledged - and the [redacted] '78 nest hole, where Sandy says they've been ~~paying attention~~ working on, possibly for a 2nd nest. However, there was nothing in it as yet.

28 May Ron checked the hole today: nothing yet (they've been paying attention to the spring hole again.

30 May Ron reports 1 egg in the nest today - the year's 1st 2nd nest.

31 May No egg laid today - still only #1.

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Road 3 Nest Record — Hastings Reservation

9 April — 5 eggs.

10 April 1700 — still 5 eggs:

① 25.3 × 20.0

② 25.4 × 20.3

③ 26.2 × 20.2

④ 24.9 × 20.1 (addled)

⑤ 24.2 × 19.6

24 April 1530 — 4 babies, 1 addled egg

	#537 ① Blk-Mauve	#538 ② LB-Yel	#539 ③ White	④ No band
24 April 1530	22.4 (12)	26.0 (13)	25.3 (13)	6.2
13 May 1530 Wt (chord, Flat.wl.)	93.2 (91,94)	86.0 (91,95)	87.4 (91,93)	–
In developmental sequence (crown) →	3	1	2	
	(all 3 very close, however)			

28 May — No eggs

30 May — 1 egg (same hole)

31 May — Still 1 egg only

1 June — 2nd egg today (broken in handling)

2 June 1420 — 3rd egg laid (2 in nest)

3 June 930 — Still 2 eggs.

	#617 ① Belongs here	(Black) #618 ② Weak baby
24 June 1630	32.2 (14)	29.2 (14)
	73.5	63.5
7 July 1300	81.0 (72)	78.1 (48)

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Road 3 — Hastings Reservation

1 June — Ron checked the nest and found 2 eggs; unfortunately he somehow broke the #2 egg while taking it out.

2 June — 1420. Another new egg now (2 in nest; total of 3 laid.)

3 June — Ron checked the hole at 930 but still only 2 eggs.

5 June — (♂184 roosted) Watched roosting here tonight: ♂184 roosted in the nest for sure.

6 June — 1630. Counted stores: Valley Oak: 150, Sycamore: 207 } 357. They seem to be going fast here!

22 June — 2000. I missed the chance to be sure, but I ~~was~~ am fairly confident that it was ♂184 ~~spending~~ the night in the nest this evening (if not, it was the ♀, not ♂68)

24 June — 1630. Checked up on the 1 baby here (Ron has further information on this nest - in short, only 1 of the 3 eggs hatched). I also added the remaining baby from Westgate's ill-fated nest, who is a little emaciated but otherwise quite comparable to the one that's here (he was bigger overall, but his developing feather tracts are only about 1/16" long - only about 1/2 that of the baby that belongs here). The rationale for all this is to replace the 2nd egg which Ron broke, also we get to see about nestling recognition by adults, as well as to see about whether the adults here compensate for the 2nd baby by feeding more. Also, of course, we get to get rid of this last baby from Westgate. In any case, we'll see what happens.

(Neither baby's eyes are open yet.)

30 June — Purge: j525. Not seen after banding on 26 Oct. 1979

j526. Last seen 18 Dec. 1979, gone by 20 Jan 1980 → Disappeared about 3 Jan. ± 2 wks.

♀446. Last seen 27 Oct. 79, (seen sporadically during the fall nest) gone by 9 Nov → Dis. about 31 Oct 1979 ± 1 wk.

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Road 3 Hastings Reservation

(30 June) ♀444. This bird, after having returned from her attempt to move to R1 last spring, only hung around for July 1979 and apparently had left again by the ambush on 25 August. She did show up briefly on 9 Nov., however, so she clearly moved somewhere → ?
Left group about 6 Aug. 1979 ± 2 wks.

7 July 1300. Banded the babies, both of whom are now fine, as #617 and #618.

23 July 1600. Went up to the hole to check to see if j618 made it out alright. And - apparently he did, since Ron couldn't see any remains in the nest.

29 July This morning Ron found an injured j617, possibly hit by a car. He was alive and kicking but off balance and unable to fly, so we took him to the lab to care for him there.

1 August j617 now still alive but in bad shape - his head is all puffed up and he can't really stand up in the box. Looks bad.

2 August j617 dead by this morning.

4 August 1145. These birds are definitely very near the end as far as stores go: Sycamore: 15 / Valley Oak 10 } 25.

25 August These birds are now out of stores.

5 October Still no stores here yet.

28 November 1200. Counted stores: Sycamore: 867 / Valley Oak: 798 } 1665. Things are pretty well full.

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School Hill — Hastings Reservation

19 January 1500. Watching from hide.

1515 ① ♀ DB/WH-DB #523 - one of the fall babies.

* 1530. Intruder by herself in tree 1: ♀ M/Red . Flew off after a minute toward 1500 (was not chased). Oops — may have been j524 after all and not an intruder If so, both fall babies are ♀♀. In fact, it looked as though she had a dark eye, was ∴ a 1st-yr bird, and also ∴ most likely ♀524.

1615. Leaving. It's getting too cold to sit and wait for the adults.

24 February 1550. Counted stores: Tree 2 - Hard limb: 900
Rest of tree: 1031 } 2217
Tree 1: 286 }

The hard limb begins where the bark falls off. I counted it 2 ways: by climbing up into the tree and counting most of it up there and by from the ground. By the latter method, which is how I usually do it, I only got ~600; thus, from henceforth I can probably assume to have counted about ⅔ of the acorns in that limb when I count it from the ground.

Only 1 bird, ♂86, was hanging around karrit-cutting at me and also chasing out a pair of persistent Nuthatches from the granary.

Afterwards, ② ♀ DP-DA(n) M/ #524 came and ate an acorn in the granary while I was up writing by the hide.

There are no stores or sign of birds at School Hill "B".

6 April ♀♀523 and 524 at Plague in a Revolution. See Plague notes.

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School Hill — Hastings Reservation

29 April — Ron finally found the nest up here, which is in the upper enclosed Valley Oak. Unfortunately, the eggs have already hatched.

30 April — 1730. Climbed up and opened the hole after flushing out 2 birds. Inside were 5 young babies (2-3 days), lots of eggshells, and no sign of any unhatched eggs: thus, it's fairly safe to conclude that the clutch was 5 and that all hatched. I put bands on the 4 largest (which may fall off) and weighed them all before returning them.

2 May — 1130. Went up to check the babies, all 5 of whom are still ok. I measured them and returned them.

9 May — 1545. After getting bad reports re this nest from Sandy for the past 2 days (no feeding, noone roosting in nest, etc.) I went up to check and found the 4 larger babies, all cold, in the hole, but no ~~other~~ sign of predation or other foul play. The babies were not obviously wounded or otherwise harmed.

This is indeed perplexing - these birds had no excuse to fail! (But, they did almost the same thing last year, no?) Again, possibly we (Sandy) scared the birds at dusk a couple nights ago and so nobody roosted here and they died. But that seems rather unlikely. For whatever reason, they just blew it.

23 May — See Ron's notes for details on the renesting of this group (he's been watching up here religiously). The 1st egg was laid on the 18th (by ♀260 for sure) in the 178 nest hole ♂. Today at 1100 I went up and checked the hole to find a 5th egg laid, but incubation has already begun, so I suspect that will be all.

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School Hill Nest Record — Hastings Reservation

30 April 1730 — Hole opened: 5 babies, no sign of unhatched eggs.

	① Blk-Yel	② Red-Tan	③ Or-Brn	④ Wh-Red	⑤ NB
30 April 1730 (wt)	15.1	17.5	12.5	11.8	6.0
2 May 1130	20.5	23.4	17.2	13.7	6.1

9 May 1545. Babies 1-4 in nest, starved.

18-22 May — One egg laid each day; usually known to be 9260. Eggs marked in order. See Ron's notes for further details.

23 May 1100 — 6 eggs: (in order of their laying): ① 25.0×19.9 (laid 18 May) ② 26.2×20.7 (laid 19 May) ③ 25.8×21.1 (laid 20 May) ④ 25.3×20.8 (laid 21 May) ⑤ 25.9×20.4 (laid 22 May) ⑥ 25.4×19.9 (laid today)

23 June — 3 babies banded (see Ron's notes for details on hatching, growth rates).

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School Hill — Hastings Reservation

27 May — 2100. Watched here at dusk but nothing at all happened. Either nobody roosted ~~there~~ at the nest or, more likely, whoever did so was firmly ensconced by the time I got up there at about 2015.

1 June — Eggs are hatching here! See Ron's notes for details.

5 June — 1200. Counted stores: Main tree # 844 } 936 (Dead limb: 397)
Tree 1: 92 }

23 June — 1700. Measured and banded the babies, who are now #602-604. (See Ron's notes for copious detail concerning developmental rates here).

26 June — Watched the nest for 2h from 1530-1730, seeing a grand total of 3 feeding visits. Pretty slow, I dare say.

27 June — Watched the nest from 530-830, seeing only 8 visits. Not a real satisfying group to watch!

4 August — 1600. Counted stores: Main tree: 425 } 440.
Tree 1: 15 }

12 September — Last night Ron discovered a casualty: j603. He had somehow managed to get his leg caught in the first (1980) nesthole (where the sawcut was) and had died there. He was pretty old, and probably expired somewhere around mid-August or slightly later → Died, unnatural cause ~20 Aug. ± 2 wks.

22 September — 845. Flushed 2 birds from here as I came to check stores. I found 70 (all in the main tree). All looked old, so I don't believe they ever ran out here.

18 October — 1200. ♀602 hawking at the lower barn. See Y notes.

15 November — See my own and Ron's notes concerning School Hill birds at Y, today and

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School Hill — Hastings Reservation

(15 November) earlier in the month. In fact, they may actually be "busting" off.

30 November 1115. Counted stores: Main tree: 1660 } 1945
2° tree: 285 }

Several comments: 1) the dead limb with so many stores in the Main tree was counted twice, 1st from the ground (610) and then from up in the tree (760). The latter figure was used in the tally. 2) a lot of the stored acorns are Black Oaks. 3) there were several birds hanging around the area.

There are no stores up at School Hill "B".

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School Hill West — Hastings Reservation

24 February 1610. Checking up over here, I find that 1) there are still a fair number of stores here in the granary, 2) there are several Valley Oaks up here that have leafed out already, 3) there are even some face flies up here (!), and 4) much of the Black Oak roost/nest tree has disintegrated since I was here last, taking with it the '79 nest hole where I ambushed the birds earlier this winter.

No birds were seen in a swing around the field here.

2 May 1100. As I arrived here I thought a bird might have flushed from the Black Oak, but I wasn't sure. In any case, the hole that looks the best up here is going to be a real bitch to get to (1° because the limb it's in does not inspire great confidence) so I did not go out just to check. However we better keep an eye out here.

These birds do have some stores left in their granary.

8 May 1630. Brought the extension ladder up here (!) with Ron, opened the nest, and found 3 babies 2-3 days old and no sign of any unhatched eggs.

29 May 1530. Banded and bled the 3 babies, now #592-594, who all look fine. We also checked the granary, where there are very few stores (as far as Ron or I could tell), but definitely some - perhaps as few as 30-50.

7 July 1530. Walked by here, but saw no sign of any birds, who must be off sapsucking somewhere as there are no stores left to speak of.

22 September 820. Checked here, finding no stores, but flushing 1 bird (for. pk/or. pk #531) who may have been about to store one. No other birds were seen in the area.

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School Hill West Nest Record — Hastings Reservation

8 May 1630 — Opened hole: 3 babies, no unhatched eggs.

		#592 ① [illegible]	#593 ② [illegible]	#594 ③ NM
8 May 1630	Not Marked	10.1 ↓?	9.4 ↓?	7.9 ↓?
29 May 1500		89.0 (76)	77.5 (64)	74.0 (55)
Devel. sequence → (crowns)		1	2	3

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School Hill West — Hastings Reservation

19 October 1030. Watching.

1055. Two birds arrived in granary: ① ♀ Blk-Or/Blk-Or # 531 and ② ♂ Yel-LB M/Lght # 592. The ♀ was storing an acorn.

1140. Leaving. There are stores here; it's time to get a hide up here and do a decent census.

30 November 1140. Lots of stores here now, but nobody seen in passing.

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ARF TOO — Hastings Reservation

8 May 1200. Checked all the holes I know about here but didn't see anything promising. In fact, I didn't even see any birds here. But they're there somewhere, dammit, I know it!

9 May Walked all over here this morning, finding one or 2 new reasonable-looking holes but no good sign of a nest or of the birds themselves. I did, however, find the nest of the other group here on ARF (I presume it's the other group - the tree is very far away from ARF, too); they have young babies. I don't know what to call that group yet, but I'll begin a sheet for them anyway.

15 May Walked around some more today, but again with little success. I found another hole - and there was a bird nearby - but it wasn't obvious that anything definite was going on.

17 May 900. Made another round here, again failing to come up with anything promising. However, as a possible resolution of the dilemma, I began to at least entertain the notion that this group's nest is the one over by the other granary and that there's only 1 group up here after all. After I watch the nest there, maybe I can figure it out!

28 May 1600. Made a check of the known holes here, but still zilch.

13 June 1610. Checked holes, but didn't find anything for sure. I did flush a bird from one tree which could have something, but that was it.

29 December 1545. Checked the granary here, which has lots of stores. I also flushed 1 bird from the area - an unbanded ♀ with a dark eye.

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ARF — Hastings Reservation

9 May — Checked around here this morning (see map on back) and actually, randomly came across a nest with babies (young - I guess 5-6 days). Although the granary of this group is not the same as that of ARF (if my understanding is correct) I'll probably call this group ARF unless we come up with something better. In any case, this is the 1st real lead on this group I've had since I discovered the granary here several winters ago.

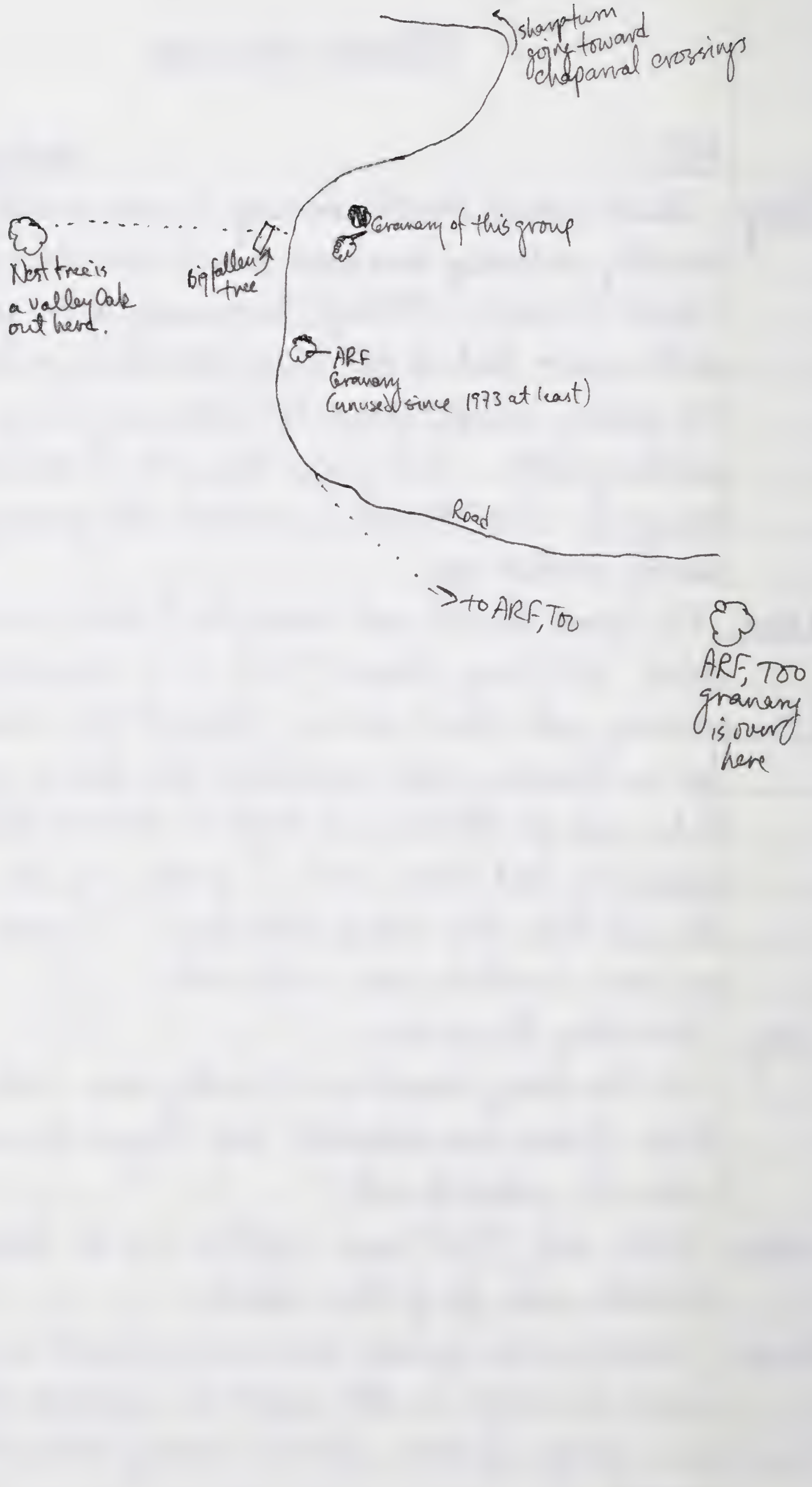
17 May — 830. Opened the nest and banded the 3 babies, who are now about 14-15 days old and #555-557. Checked the granary, but didn't see any stored acorns. Hmm. This got me thinking, and (especially after failing again to find a nest at 'ARF, Too') I began to wonder about the possibility that there aren't 2 groups up here after all and that this nest *is* ARF, Too's. I guess I'll just have to watch here to find out!

18 May — 940. Watching the nest here.

1040. After missing several visits I finally saw 2 birds, a ♂ and a ♀, both of whom were unbanded. Sigh. I guess this isn't going to solve the problem after all.

9 October — j♀556 and j♂557 seen together up at Black Oak; see Blk Oak notes for further details.

29 December — Checked up on the granary here, which is fine and has lots of acorns stored in it - enough to ~~[illegible]~~ support the hypothesis that there are 2 groups up here. I didn't see any birds in the area, however.


shortcut going toward chaparral crossings
Granary of this group
Nest tree is a valley Oak out here.
big fallen tree
ARF Granary (unused since 1973 at least)
Road
=> to ARF, Too
ARF, Too granary is over here

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Black Oak — Hastings Reservation

21 January 1000. Watching from hide.

1025. Nothing. Going to look around.

1100. Over on the dead perch tree in the forest S of Bianca there was a ♀ who I sat and watched for nearly ½ hr before she would show me a thing. She was in fact banded and appeared to be ① ♀ Or-Lal/ Or-Lal #320 from Black Oak. She finally flew off in the direction of Bianca, which is where I'm now off to.

1110. Nobody elsewhere at Bianca. Where are the Black Oak birds hanging out these days?

1535. Over in the upper corner between Bianca and Black Oak were ② ♂ M/ Red/ #497 plus a ♀.

1550. And a 3rd bird is at Black Oak, of all places, sitting in the side storage area: ③ ♂ Blk/Or-Yel # 426.

1607. And finally a 4th bird, sitting up in the perch area of the forest betwixt BO and Bianca, revealed himself to be none other than ♂ ~~Red~~/~~Yel~~ with #102 when he flew into the central area to chase out some dicky-bird. Not bad - that does it for the 2 birds I missed in November plus the baby and one ♀.

26 February 1430. Counted stores: Central area: 2038 (!) } 2405.
Side area: 367

I used the spotting scope for most of the central area (as well as climbing up the fallen limb) and did a fairly thorough job.

I didn't see any birds here while counting.

17 April 845. At least 4 birds, all probably from Black Oak, were hanging around Bianca this morning. Identified for sure were

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Black Oak — Hastings Reservation

(17 April) 1) ♂ Blk/Or #426 and 2) ♂ Red/Blk-Red #497. Several others were in the area, however.

20 April 1230. Tried to get inside the hole that I opened last year (in the Valley Oak in the central area) but failed - they have deepened it considerably. There was a bird in it when I arrived, however, and they no doubt have eggs there.

26 April 1030. Went up and - with considerable difficulty - opened the hole, where they already have 4 babies!

8 May 930. Flushed 2 birds from the nest area in passing.

15 May 930. Banded and bled the babies, of whom there are 3. They are now #544 - 546. The hole was horrible, as usual.

21 May 1850. Checked holes here, flushing a bird out of the nest hole (I'm pretty sure) but nowhere else.

28 May 1520. Checked holes here, but no sign of another nest. I did flush 2-3 birds from the area.

31 May 1520. Counted stores: Central area: 1026 } 1026.
Side area: 0 }

No sign of any birds in holes or in the area while I was here.

2 June 1815. Walking over here I flushed at least 4 birds from the area, plus there was one of the fledglings looking out of the nest hole who wouldn't come out. No adults were in any other holes, however.

13 June 1530. Checked the holes here, but no sign of a 2nd nest.

19 June 1900 ♂ in nest hole. There's at least some possibility they have a 2nd nest here; I'll have to check again to find out.

21 June 1400. Bird in hole again, so I went up and checked: 4 eggs!

20 July 1450. Went up to band the babies, of whom there are 2 (along with 2 dirty, unhatched, addled eggs). They are now #624 and 625. The last of the year!

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Black Oak Nest Record — Hastings Reservation

26 April 1030 — Hole opened: 4 babies (no unhatched eggs); circa 4-5 dys old.

15 May 930 — Babies (3) banded and bled

	①544	②545	③546
15 May 930 (wt, FWL)	79.0 (86)	85.3 (89)	91.6 (90)
Devel. sequence (crown) →	1	2	3
	(1 & 2 close)		

21 June 1400 — New nest (same hole): 4 eggs

20 July 1400 — 2 babies plus 2 addled eggs unhatched

	①#624	②#625
20 July 1400	83.0 (72)	83.5 (67)
Devel. sequence →	1	2

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Black Oak — Hastings Reservation

24 July — Watched the nest from 1230-1500, seeing virtually no activity at the hole at all (1 feeding by ♂426) even though there were plenty of birds in the vicinity. Individuals I identified were ①♂102, ②♂426, and ③j 544.

5 August — 930. Counted stores: 40 (all in central area). Definitely on their last legs here!

No birds seen here in passing.

3 October — 830. Counted stores: 487, all new and just about all in the one dead limb in the central area. Also got a quick glance at ♂426 in the area.

9 October — 815. After seeing noone at Black Oak proper I went over to Bianca where there were numerous birds, particularly along the far knoll extending down beyond the old granary area.

825. ①♂ Or-LB-Or #545, ②♀ M1 LB/DB-LB #544; ③♂ LB-Red/LB-Red #624. all below the storage area on the N side of the knoll.

845. ④♂ M1 Or/DB-Yel(u) #321 up in the middle of the knoll.

850. An unbanded ♀ here - but no being displaced by ♂321 and ⑤♀ DB/Red #427.

900. Now watching the forest between BlkOak and Bianca, where several birds are/were hanging out inc. an unbanded 1st yr ♂-plumaged bird.

915. There are even a couple birds back at BlkOak proper now.

918. Apparently an unbanded ♀ intruder here being displaced by somebody.

921. Intruder here now is ♀ DB/Or LB/M - possibly j556 from ARF? Yes! Also ♂ B-Wh(u)/Or Yel/M #557 here with her exploring the side

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Black Oak Hastings Reservation

(9 October) area!

1035. After a long dearth I finally had ≥4 birds in the central area, inc. j♂624, j♀544, and ⑥♂ wn/yel #102.

1100. Giving up for now.

11 October 800. Searching for birds here.

810. Found 5-6 below the granary area at Bianca on side of hill. ①♂ Red/Blk-Red #497; ②♀ Red/M #427; ③♂ Or/M #321. ④♂ Blk/Or #426. ⑤♀ LB/Dk-LB #544. Are at least 7 birds here.

830. ⑥♀ Red-Light/Blk-Lg #320. All the adults are here ⑦♂ Or-LB/O, #545. ⑧♂ LB-DB/M #546 eating acorn (everyone's eating acorns here). ⑨♂ LB-R/LB-R #624.

900. Well, I'm not likely to get as thorough a watch here as this for quite some time. Everyone is hanging out here except for ♂102 (who I saw on the 9th over at Black Oak itself and is very likely over there now) and j625, who is, I would guess, most likely gone.

These birds are clearly quite at home over here at old Bianca.

29 November 1130. Counted stores: Central area: 3230 } 4056.
Side area: 826 }

The storage areas here are loaded; I have no doubt but that I undercounted by several hundred ~~stores~~ acorns!

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Arnold 1 — Hastings Reservation

21 January 1515. Walking by here I flushed a ♂ who was banded and, as far as I could tell, had Yellow-Da colors on at least one leg. I'm therefore assuming he was ♂100, as is to expected. No 2nd bird was seen in the vicinity.

25 February 1530. Meanwhile, over in the "Top" tree (by the A1 '75 nest tree) was none other than ♀ WH/LP #505 herself. This group ok.

1700. Counted stores: 18|4. Doing alright. Also, I may have written this down before, but in any case, if not, the top part of the dead limb way at the top of the granary has fallen (awhile ago I think), taking with it at
× least 300 holes as well as the old nest hole (used back in the Mackoberts' days but not since I've been here). I don't think the birds lost many active stores in it, however.

Nobody was around while I was here counting.

6 April 1045. Up along the fenceline by Keep Out (on the side of Big Tree) were 2 birds, one of whom turned out to be ♂ Yel-Da/Yel- #100; I didn't get a look at the 2nd. He flew toward A1 after about 10 min.

1220. Up above A1 were 2 birds; 1 flew over across the top field by A3 toward Lambert's; the 2nd flew to the top tree and was ♀ Mauve/LP #505 from here. Thus, it would appear as though both birds are here.

10 April 1500. Bird in the nest hole; flushed out when we drove up.

17 April 1130. Bird in hole. Checked it: 2 fresh eggs.

20 April 1230. Bird in hole: 4 eggs now. Eggs were also rather warm.

30 April 1130. Since none was in the hole, I went up to check (go to p.3)

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Arnold 1 Nest Record

17 April 1130

20 April 1230

30 April 1130

Hastings Reservation

Opened hole: 2 fresh eggs

4 eggs now; warm.

3 newly hatched babies + 1 unhatched (addled) egg.

	Or-LG ① #566	DB-Mauve ② #567	③ NB #568
30 April 1130	8.8	5.7	4.3gm
4 May 830	21.5	17.3	14.1
21 May 1630	79.9 (60)	75.3 (59)	72.0 (52)
Devel. sequence (crown)	2	1	3

Melanerpes formicivorus

Arnold 1 — Hastings Reservation

(30 April) finding 3 young (newly hatched) babies plus 1 addled egg. The babies were weighed and marked and returned. Gwen proceeded to watch here, but even though the birds were around, noone came to the hole during the next 2 hours. At that point she left.

4 May 830. Checked the nest and weighed the babies, all of whom are fine.

21 May 1630. Banded the 3 babies, all of whom look fine. They are now #566 to 568.

31 May 1500. Counted stores: 720. Also, there were still babies in the nest making noises.

2 June 1840. A baby looked out of the nest hole briefly at me.

26 June 1415. Flushed ≥2 birds from near here, at least 1 of which was almost certainly a baby

5 July 1415. Flushed ≥4 birds from the backside of the territory here (on the way to A3/UA2) (the birds were probably sapsucking here). I saw 2 of the babies: j Red/Red #567 and j Wh-Dk/M #568. (see map on back)

13 July 1530. In the vicinity of the granary I saw ① ♀ Wh/LP #505 and also ② j M/ DB/Or-DB #566. So it would appear as though everyone is here.

14 July 600. j567 seen with several UA2, Lambert, and other birds at A3 along the fenceline. See UA2 notes.

650. Now j567 is hawking up at Lambert. See Lambert notes. j568 up at Lambert also.

5 August 1030. Rather to my surprise, even this group appears to be plum out of stores: 0. There were at least 2 birds around, however

3 October 1015. I found 3 brand new acorns stored here; thus, they are apparently just getting going here.

5 July
Birds were here
to A3
"Forest"
A1
Road
Fence line
Keep Out
"Big Tree"

Melanerpes formicivorus

Arnold 1 — Hastings Reservation

9 October 1130. Made a quick tour around this territory, managing to identify ①♀ M/Red #567.

11 October 945. Watching.

1006. ①♀ wh/LP #505 arrived and is now eating an acorn.

1013. ②♀ R/R #567 arrived in granary with an acorn.

1018. ③♂ M/Red-Blk #566. Also ④♂ Wh-/M #568 eating an acorn.

1045. Leaving. Everyone's here except for ♂100, who I'm a little concerned about; however he certainly gets another chance to appear. No storing yet here, although the birds are busy eating green acorns.

22 October 735. Watching.

745. ①♀ Red/ #567 eating acorn in granary. ②♀ Wh/ #505. ③♂ Wh-/M #568.

753. He's here: ④♂ Yel-Red/Yel #100. But I have to admit, it doesn't really look like Yel-Dereen. ⑤♂ Blk/Or-Blk #566.

830. j Wh-Marble/M #568 is molting to a ♀! Guess it's still early after all!

* 840. Intruding here briefly: ♀ Red/M #507 from L. Arnold 2.

By the way, there are some acorns stored here now, although the birds still have a long way to go.

* 858. j♀568 clearly gave way to j♂566 when the latter landed with an acorn to store on the same limb in the granary.

905. Leaving. Everyone's here; the only problem which once again has been raised is: is the A♂ here really ♂100?

1 December 1345. Counted stores: 2052. Doing ok.

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Keep Out — Hastings Reservation

8 May 1130. As I walked up here a ♀ flew from the Hastings side of the fence to this area; then, after stopping twice, continued on over toward Near Lambert (in that direction). She was banded, and what I saw was ♀ M/ wh-Blk - most likely ♀520 - the bird we banded at UA2 last August.

1 December No stores here or sign of new inhabitation.

Melanerpes formicivorus

Lambert Hastings Reservation

8 January Changers: ♂284 and ♀unbanded. It's debatable what went on here this summer - did these 2 birds recolonize, leave, and then return again this fall? This interpretation is consistent with my limited observations here. However, since these birds seem to be very hard to find even now when they have stores, I have decided to adopt the alternate scenario which supposes that they were here all along, but just hanging out over by Keep Out (like where I saw them on 23 Novem.) and being inconspicuous. Thus both birds will be maintained continuously since ~~there~~ their return last spring.

21 January 1225. Watching.

1240. Exciting, as usual. Going to look around.

First off, a large low limb (perhaps the only remaining major living portion) of the Hastings Valley Oak granary here has fallen since the last time I was here. I don't think any storage holes were lost (see back).

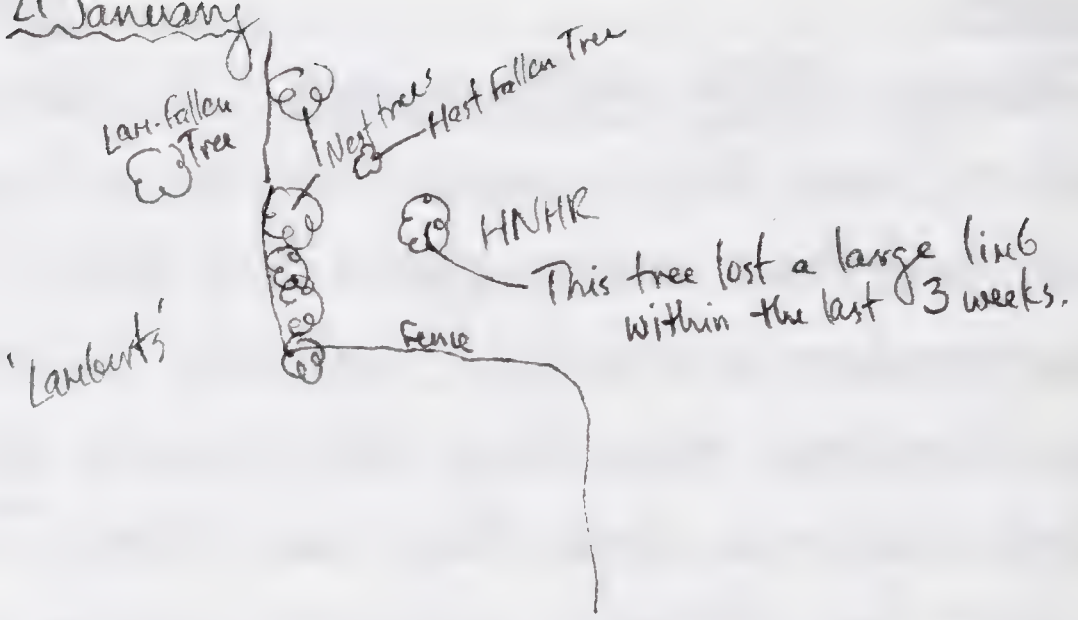
1452. On the way back by here, ♂ M/DA or #284 was actually here, sitting on the Hastings Valley Oak granary. This may be the 1st time he's been where he's supposed to be all winter!

1502. Leaving. No activity here which might bring in the ♀ for me.

31 January 930. Back in the area just up from the Lambert gate on the knoll is a lone ♂ M/DA or, most likely ♂284. It's quite possible this bird may not even have a ♀ anymore.

25 February 1530. Counted stores: LFT: 575; VO Nest tree: 264; VO: 273; HFT: 1416 → Total: 2528. No sign of any birds around.

21 January


Lan. fallen Tree
Nest tree
Host Fallen Tree
HNHR
This tree lost a large limb within the last 3 weeks.
'Lambert's
Fence

Melanerpes formicivorus

Lambert — Hastings Reservation

(25 February) 1610. After wandering over by Near Lambert and so forth, where there was some activity, I came back on the south side of the "pond" going back toward Hastings. In the same area where there have been birds several times in the past were several birds - at least 3 and possibly 4. They were not especially friendly to each other, and some displacing was taking place. When they saw me, however, they all sat for awhile, allowing me to identify 1) ♂ Or/DG-Or #284 from Lambert and also →

x ♀ Maroon/LP-Red #207 → the former ♀ at Arnold 3!! Eventually they flushed over to the edge of HNHR (to the fence right above the A3 nest tree) where I again identified ♂284; at that point he was with a second bird, both of whom flew off along the fenceline toward Keep Out.

This would suggest that ♂284 and his ♀ are still here, and also that ♀207 and possibly her ♂ are both hanging in here also, apparently spending the winter over on Lamberts along with other "orphans".

26 February 1515. This time when walking up from A3 to the Keep Out area there were 3 birds up in the "Top" tree who scattered over onto Lambert's (area S of Reservoir, as before).

6 April 1115. Noone seen over here (on either side of the "Reservoir") this time. I did count stores, however:

Lam FT: 600		
VO NT: 238		
Hast FT: 248	2409	
VO on H: 1323		

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Lambert — Hastings Reservation

(6 April) 1190. On the way back around the Reservoir I did come across a bird: ♂ M/ ? very possibly 3284 again. He was alone, however, and flew down to one of the canyons by South Ravine before flushing out of sight. I wonder about that ub? that's supposed to be here...

12 April 1530. ♂ or ♀-or # 284 with acorn in his bill up at the upper end of the territory.

17 April Nobody seen in passing or in holes.

26 April " " " " " " " (1210).

30 April I heard some action from up here around noon but I was too lazy to go check things out.

4 May 1300. Checked up here only to find the ♂ in a hole in the Hastings Valley Oak (the one whose limb fell last winter). I went up to discover babies (!), and opened the hole to find 5. Two were not doing very well, however, and I was definitely starving. I weighed and marked them and returned them.

20 May 1130. Set up an ambush here in hopes of nabbing the ♀ as she feeds.

1400. No luck (problems with the string and the neighbors interferred).

Counted stores: LamFT: 211
Nest tree:
H~~VO~~: 120
HastVO: 160
HFT: 1024

} 1515. Depletion has mainly been in the LamFT.

1940. At dusk tonight I saw 2 birds, one of whom roosted in the nest, the other of whom, as far as I could tell, roosted elsewhere in the same tree.

21 May 1800. Watching the nest on this foggy, cold evening. (go to p.5)

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Lambert Nest Record

4 May 1300

Hastings Reservation

Opened hole: 5 babies, no sign of unhatched eggs.

	#581 ① DG-LG(M)	#582 ② BK-M	#583 ③ DP-DB	④	⑤
4 May 1300	12.3	13.4	12.4	5.3	26 (starving)
25 May 1715	92.3 (78)	86.6 (84)	84.0 (86)	–	–
Dev. sequence (known) →	3	1	2		

(1 & 2 very close)

Melanerpes formicivorus

Lambert — Hastings Reservation

(21 May) 1930. With the fog and temperature getting nice and cold, I saw no feeding visits at all, nor did I see where the ♀ roosted. However, (the) ♂ roosted in the nest. He was banded, and no doubt ♂284.

25 May 1745. Banded and bled the babies, of whom 3 made it. They are now # 581-583.

31 May 1250. Watching. One baby looking out of the hole.

1430. Leaving. The damn birds never showed, as usual.

1 June 1515. Watching from hide.

1630. A ♀ landed for about 3s but flew off before I could see her at about 1610. At this point I'm going to move the hide and try yet again tomorrow.

2 June Ewen watched here this evening and saw ♂284 feed several times, but still didn't see the (a) ♀.

We both watched at dusk, but totally failed at seeing anyone roost here.

3 June 1730. Watching from hide.

1815. ♂284 sat here for 15 min or so; others are off beyond the pond (although there may still be babies or a baby in the nest).

1830. ♂ is at the nest - somebody is still in it, at least.

1845. ♂ still at nest. Leaving to check the ridge beyond the pond.

7 July Flushed ≥3 birds from here when I came to set an ambush. Unfortunately, only 1 bird returned to roost in the hole.

14 July 600. j581 seen with several UAZ, A1, and others at A3 along the fenceline. See UAZ notes.

630. Meanwhile, up at Lambert itself were several (4+) birds. At least 2 were hawking vigorously and turned out to both be

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Lambert Hastings Reservation

(14 July) unbanded juveniles!

640. This is starting to look a little better: first I saw a banded juv. displace one of the unbanded juvs. Then after a few minutes I saw ♂ M/DG-Or # 284 along with jDK/LB-DK # 582 hawking in the far tree.

645. Meanwhile, there's still an unbanded bird (apparently AO♂) hawking from the area right around the upper roost tree while ♂284 still sits in the top of the far perch tree!

650. Now hawking together in one of the Valley Oaks by the Lambert Fallen Granary are ① j Red/Red # 567 (Arnold 1) and ② AJ unbanded (Lambert?). Also ③ j WH-Dk/M # 568 here.

Boy. I had totally forgotten how much juveniles wander around - mostly unmolested - in their first summer!

5 August 1015. 2 birds in tree at upper edge of the territory: ① ♂ LG-Dk/Light-Dk 63. and ② j? DA/DBlue 543(!) Who are these birds?? These are apparently ♂63 and j543 from Finch!

1020. I also flushed 1 bird from the Hasting Valley Oak granary while I was looking for stores: and found 0.

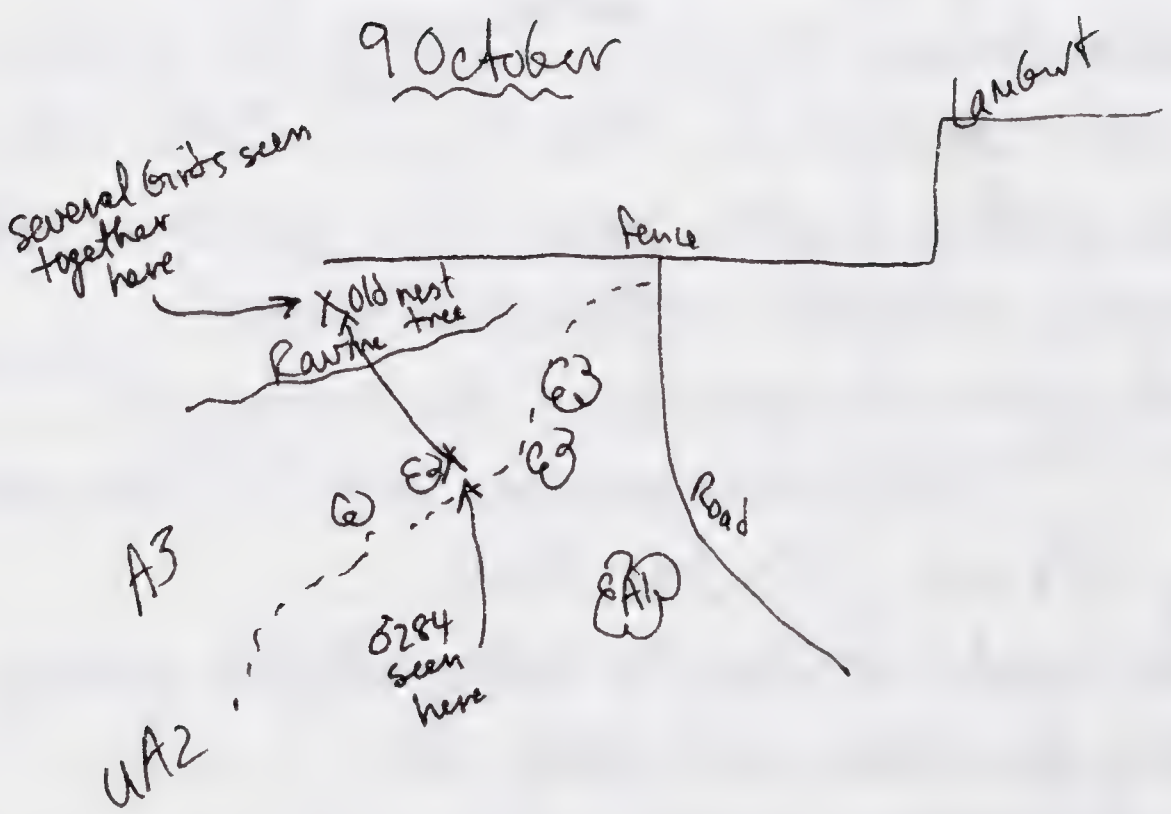
3 October 1000. Counted stores: Lam FT: 5
Old VO Nest tree: 1
Hast FT: 1
} 7.

Although not into storing yet, at least one Golden Oak here (by the corner) is loaded, so I trust they'll do ok here. I did see 1 bird briefly, but that was it.

9 October 1125. Down by the A3 corner (& old nest tree on side of hill by fence) are several birds, one of whom was apparently ♂ M Or/DG-Or # 284; the others may very well have been Lambert birds also (see back).

9 October

Lambert



Melanerpes formicivorus

Lambert — Hastings Reservation

19 October Watched roosting here tonight, seeing 5 birds roost in 3 different holes in this year's nest tree.

These birds have also begun to store here.

20 October Watched roosting again, but this time at least 3 birds roosted in the top hole and noone roosted in the low hole. I did identify j♂ LB-Blk/M #582.

22 October 700. At last I ambushed here and came up a winner. I'd seen 2 birds roost in the upper hole (1 a ♀) and 1 roost in the low hole; as it turned out the other 2 roosted in the nest hole. The bird by himself in the low hole was j♂582; the 2 in the top hole were ♂284 and the unbanded adult ♀, now ♀632, who was the last known unbanded bird in the study area. These 3 (I didn't have an ~~as~~ ambush set up at the nest hole) were processed and released by about 645 (the actual ambush took place at 522, when it was still quite dark.

At 715 I wandered over to the truck and noted several birds in the area of the old AB nest tree and the large Valley Oak just this side of the canyon. These birds turned out to be the Lambert birds, and I identified ♂582 and ♂583. (It could still be too early to tell the sex on j583, however, as ♂582 was just molting to a ♂).

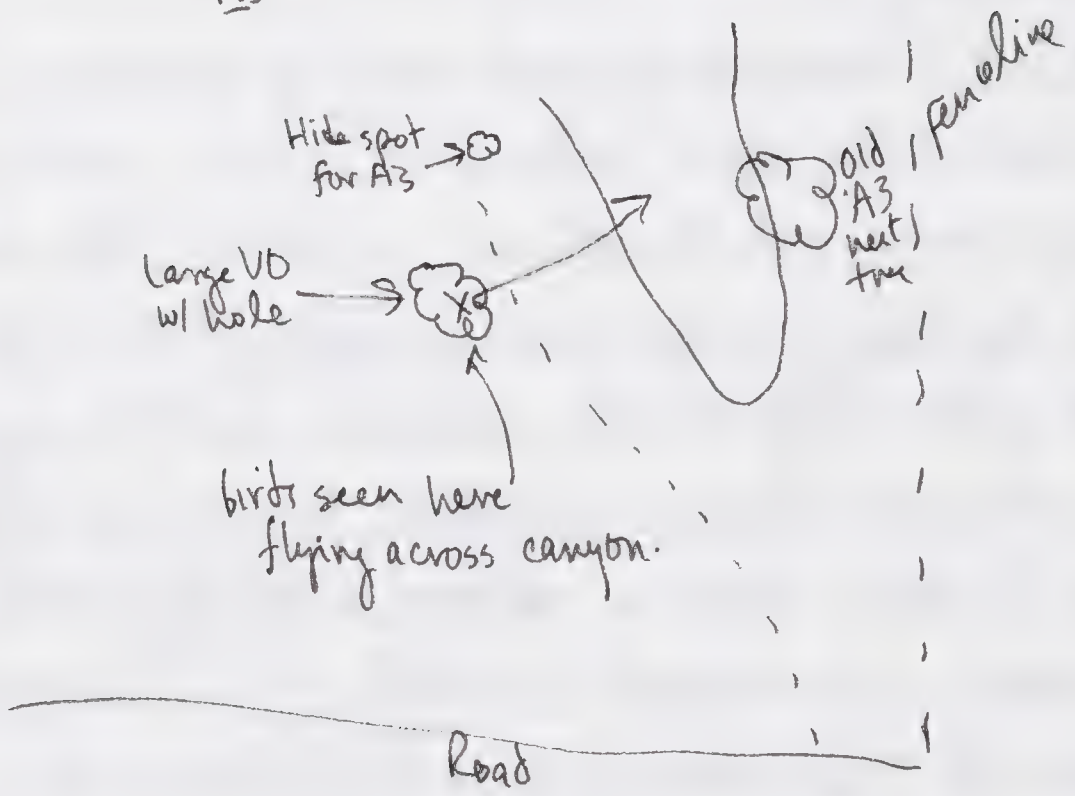
See map on back

1 December 1300. Coming up here to count stores, I flushed several birds, 2 of whom I identified as ① ♂ LB/M LB-Blk #582 and ② ♂ M/Yel-DG #581.

Stores:		
	LamFT:	0
	Old nest tree:	13
	HFT:	901
	HVO:	108
		1022.

22 October

715



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Lambert — Hastings Reservation

(1 December) I don't know why these birds seem to be holding back, since several of the trees around here were (and 1 or 2 still are) loaded.

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Arnold 3 — Hastings Reservation

8 January After a long and fruitful history, this entry would appear to be A3's obituary. Following the demise of the granary here on 28 July, these birds appeared to still be here on 7 August, and were both involved in a revolution at UA2 on 26 August. At that time the 2 A3 birds appeared to be in control at UA2 and I fully expected them to take over there. But, inexplicably, they didn't, and have not been seen since.

→ Abandoned about 31 August 1979 ± 2 weeks.

With no real granary here now I do not expect any replacements.

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Upper Arnold 2 — Hastings Reservation

8 January — Add: ♂123, ♂126, ♀ unbanded. I'm not at all sure when these birds moved in here but it must have been following the activity on 26 August, when I was sure that the A3 birds were going to take over and I did not see ♂123 or ♂126 at all. They presumably must have been settled by 5 October, when I noted some stores; birds were here on 16 Sept. but I don't know who they were. → Founded about 15 Sept. ± 2 weeks. ♂123 and ♂126 were actually seen at LAZ on 22 August; they appeared to still be at Bianca earlier in August.

21 January — 1130-1215. Watched here, but noone was in any rush to come by and let me see them.

30 January — At dusk here I saw only 1 bird, who roosted in the '79 spring nest hole.

31 January — 835. A bird (♀ I think) was sitting in the big Valley Oak next to the old A3 granary ('77 nest tree of A3). She flew off before I could identify here, however.

26 February — 1500. Counted stores: Main tree: 967; 2° tree: 334 } 1301

Nobody here in passing.

6 April — Nobody seen here in passing, but there are still stores here.

10 April — 1515. Noone in any holes here; nobody seen in passing.

17 April — 1000. " " " " " " " " " ".

26 April — 1145. ♂ in '79 nest hole: 3 eggs.

30 April — Watched here from 1200-1400 (actually 1500, but I blew the last hour by missing when the ♀ returned), seeing a ♀ (with distinctive face markings) plus old ♂123. After this (go to p. 3)

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Upper Arnold 2 Nest Record — Hastings Reservation

26 April 1145 — Bird in hole: 3 eggs, fresh.
① 24.4 × 18.6
② 24.3 × 18.6
③ 25.2 × 18.4 - didn't hatch

30 April 1500 — Still same 3 eggs only.

8 May 1100 — 2 babies plus addled egg (#3)

	① #590 Blk	② #591 NB
8 May 1100	20.3	16.6
28 May 1400	85.7 (91)	81.9 (85)
Devel. sequence (crown) →	1	2

Melanerpes formicivorus

Upper Arnold 2 — Hastings Reservation

(30 April) I went up and checked the hole, finding only the same 3 eggs that were here on the 26th.

8 May 1100. Two babies plus 1 addled egg in the hole now.

28 May 1400. Banded and bled the 2 babies, who are now #590 and 591.

Counted stores: Main tree 473; 2nd dam tree: 147 } 620.

2 June 1715. Went up to the hole to set an ambush for the ♀, but before doing so I decided I'd better check up on the babies. After grabbing one and pulling him out to show Gwen, they decided that enough was enough and proceeded to both fledge, a process which they were surprisingly adept at, considering that I hadn't expected them to go for a couple more days. In any case, I didn't set the ambush, but will hopefully find out where the ♀ is roosting here soon.

19 June 1845. Arriving here I flushed 3 birds out of a hole in the nest tree - so at least 1 of the babies is still around. I proceeded to set an ambush there in the hopes of nailing the ♀.

22 June 530. Eventually I ambushed at a hole in the low Valley Oak (the old nest tree); however, as it turned out, only ♂123 had roosted there.

29 June The birds here continue to be very sly indeed, having now proceeded to roost elsewhere after I'd set up an ambush twice more since last week.

30 June Purge: ♂126. Last seen 11 Nov. 1979; not seen when the spring nest was watched on 30 Apr. 1980 → Dis. about 31 Jan 1980 ± 2 months.

5 July 1430. In passing I flushed a baby out of the granary who was light/least #591.

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Upper Arnold 2 — Hastings Reservation

13 July 1500. Came up to set up ambush. On arrival, an adult ♂ was looking out of the a hole in the 2° granary. I flushed him out, and he was followed by 2 (both) babies. One stopped where I could identify him (j M/DG-BR(n) #591); but both are certainly still here.

14 July 545. Despite the failure of the trap, I managed to block up the hole and ended up with a successful ambush, getting ♂123, j591, and the unbanded ♀ (now ♀621), who had the very dark, connected mustaches matching those of the breeding ♀ here this spring. j590, however, wasn't in the hole, and I have to admit that this makes me skeptical about my claim to have seen both babies exit from the hole yesterday. I did see j591, who was one of the birds leaving, but it is possible that the 3rd bird was the ♀. I'll have to watch to find out for sure.

555. Immediately after finishing the ambush I noted several birds over at A3 right at the fenceline. I went and got my scope, and came back to discover ①♀621, ②j591, plus ③A♂ub, ④jub among them. The unbanded ♂ garricked a few times, and the unbanded juv. was probably with him.

600. Also here: ⑤j M/LG-DG Yel/DG #581 (Lambert); ⑥j M/Red # 567 (A1)

605. Birds moving over toward UA2.

610. The unbanded ♂ is back (along with j581 and j591) drumming, etc. — trying to get someone to show some enthusiasm over this territory, I guess.

615. On my way up to Lambert I flushed a bird from the "Middle" tree (large Valley Oak ½ way up to Lambert) who was ~~♀~~ j DG-LG/DG — apparently j590 from here!

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Upper Arnold 2 — Hastings Reservation

5 August 1000. Counted stores: ♀. (They ran out rather quickly here!) I did hear ≥2 birds here, including 1 juv.

3 October 930. Still ♀ stores here. I didn't see anyone here in passing.

9 October 1130. Noone seen here in passing. Still no acorns stored, either.

22 October 915. Flushed 1 bird here and noted quite a few stored acorns while setting up the hide.

24 October 920. Watching. Flushed 1 bird from the granary when I arrived along with a bird in the upper end (the tall Valley Oak toward LA2 at the edge of the field) who was ♀Or-DB/Or- ?? This bird proceeded to flush over to A1!

1000. ①♀Wh-Or/Wh-Or #621 here in the granary for a few minutes.

1028. ②♂M/Da-Wh #590(!) here shagging out a nuthatch.

1048. ③♀BP/Da-BP(W) #591 in granary.

1120. That's good enough for now. No storing was taking place, but everyone would appear to be here.

29 November 1330. Counted stores: Main tree: 1184; 2° tree: 484 } 1668.

I saw several birds flush when I started counting.

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Lower Arnold 2 — Hastings Reservation

21 January 1115. Both birds: ♂ub and ② ♀Red/M #507, sitting up in the top of the "top" tree: the Valley Oak pretty much at the top of the small rise in between the A1 1975 nest tree and the granary here.

31 January 850. I rather randomly ambush over in the Valley Oak nest tree here last night and managed to come up with ♀507. The ♂ apparently slept elsewhere; while I was waiting for her to come out a bird was in the outer Blue Oak chasing starlings for a bit, and I assume that was he. He may actually have roosted out there, I suppose.

26 February 1445. I was able to count a total of 125 stores here, all but a few in the Blue Oak. As usual, though, the tree is difficult to do anything with and they could easily have twice that number salted away somewhere. They definitely do have some, in any case.

6 April There are still a few stores here, at least, and there appears to have been some recent drilling done around the nest hole in the outer Blue Oak; but I saw no sign of birds in passing.

10 April 1515. Nobody seen in passing or in any holes.

17 April 1000. Nobody seen in passing, but 1 bird seen here when we were up by A3.

26 April 1200. Nobody seen in passing or in any holes.

30 April 1530. " " " " " " " "

8 May 1045. Flushing a bird out of the hole, I opened it and found 3 eggs. This is back in the Valley Oak (the '75 nest hole).

15 May 815. After a full week of shitty weather I made it back up to ~~ed~~ (go to p. 3).

Melanerpes formicivorus

Lower Arnold 2 Nest Record — Hastings Reservation

8 May 1030 — Hole opened: 3 eggs, not real fresh
① 28.9 × 20.6
② 27.8 × 21.0
③ 27.6 × 20.4

15 May 815 — 4 eggs; cold
④ 21.4 × 16.3

1 June 1700 — 4 new eggs

2 June 1800 — Still 4 eggs:
① 28.0 × 20.9
② 28.2 × 20.1
③ 28.1 × 20.7
④ 20.2 × 15.7

13 June 1545 — 2 babies, no eggs

	#611 ① wh-Red	② #612
13 June 1545	29.4	20.1
26 June 1430	Both still here	
29 June 430	82.8 (77) bill ~24mm	53.2 (51) bill ~17mm Sparrow-like bill Very short tarsi
5 July 1415 (chord flattened)	79.1 (104 / 108) bill: 23.0	54.3 (72) bill: 17.5

Melanerpes formicivorus

Lower Arnold 2 Hastings Reservation

(15 May) check here. First of all, noone was in the hole. When I put my hand in, I first thought that the hole was empty, but checking around in the sawdust I eventually came up with all 3 of the eggs here on the 8th plus a 4th, very small egg. All were stone cold and still translucent, confirming that this particular attempt has been abandoned. Nonetheless, I at least get some clutch size data out of it. Hopefully they'll try again if it clears and warms up; however, this is the one group that has very few stores available, so it would be interesting if they didn't nest successfully.

20 May 1400. Checked the holes here but saw nothing promising.

21 May 1750. Noone in any holes here or seen in passing.

28 May 1500. Saw both birds here: a ♂ and ♀ Rab #507. I watched for awhile to see what they were doing, but found no clear sign of another nest.

I can only count 25 acorns here, but they do definitely have some and, given the way they stores here, they could easily have at least twice that number (more than ~200 seems unlikely, however).

1 June 1700. Flushing a bird out of the hole in the outer Blue Oak, I checked in with the peeper and found 4 eggs (1 possibly a runt, plus 3 or 4 acorns apparently sitting on the bottom). Unfortunately, the hole has been deepened, so I was unable to get at them for now. At least they've definitely started again, however.

2 June 1730. Finished opening the hole to find 4 incubated eggs, 1 of which was indeed a runt (just like in their 1st clutch!). Also, there were indeed several acorns laid out on the bottom of the hole as though they were incubating them as well. The eggs were warm and birds were incubating.

Melanerpes formicivorus

Lower Arnold 2 — Hastings Reservation

13 June — 1545. Checked the nest, where there are 2 healthy babies and no further sign of eggs.

19 June — 1920. Flushed a bird from the nest, leaving squealing babies.

26 June — 1430. Both babies still here and doing well (smaller has a very small bill, however).

29 June — Began by ambushing the nest hole with the net, successfully nabbing the unbanded ♂, who is now ♂610. This was followed by banding the 2 babies as #611 and 612. #612, as noted above, is really an odd beast. Not only is his bill short, stout, and virtually ~~sparrow~~ chicken-like, but his tarsi are so short that I could really only put a single band on each leg. However, he weighed a reasonable amount (~53gm), and even though he's well behind his sibling I think there's a pretty good chance that he'll make it.

5 July — 1415. Checked the nest to see how the kits are doing and to get some pictures of the weird one. Both were fine.

5 August — 945. Nobody seen here in passing. Also I couldn't find any stores anymore: Q.

3 October — 900. Still No stores here. I watched for 10-15 min but didn't see any birds, either.

11 October — 905. Watching here.

910. 3 birds together in the Valley Oak perch tree. Light is not good but 1 is j M/DB-LB # 611 (I think a ♂, but I'm not sure).

913. All 3 gone; now ♂ LB-Red/LB-Red #626 from Black Oak (Bianca) up there, looking furtive.

915. All 3 birds no doubt still here: j612 is definitely gone (not seen after banding).

Melanerpes formicivorus

Lower Arnold 2 — Hastings Reservation

22 October 840. 9507 seen intruding at Arnold 1; see A1 notes.

29 November 1200. Watching. ①♂DB-wn/- presumably j611 here to store an acorn.

1250. Didn't get another chance to see him. Going to count stores: Outer tree: 30 } 50.
Inner areas: 20 }

In the process of checking the storage areas I got another look at ♂DB-wn/PK-wn #611 who was with ②♂ ub (dark eye) and I think a 3rd bird.

To summarize, I don't really know what's up here. My guess is that the ♀ is probably still here along with a new ♂ and j611. But why they haven't loaded the storage areas up with acorns is a complete mystery. In fact, why these birds would bother to stay here at all is a mystery, since the remains of Bainca provide much better storage facilities than they have here. In any case, there do appear to be birds still here, at least for now!

11 December 1100. Walking by here, an unbanded ♂ was seen, karrit-cutting in the area and sitting in the granary. No sign of anyone to chase him out, but there are stores here.

Melanerpes formicivorus

Bianca — Hastings Reservation

17 April 845. Several birds over here proved to be Black Oak birds; they were hawking and generally hanging around the entire area.

8 May 940. Flushed 3 birds from the main area here on arrival.

21 May 1800. Noone seen here or in any holes.

5 August 945. ≥2 birds hawking in the lower part of the territory - presumably Black Oak birds (?)

3 October 845. No stores here anywhere. There were, however, several birds in the upper area by the corral. Most were presumably Black Oak birds, but 1, at least, was unbanded and did not flush with the others.

9 October 800. I came over here searching for the Black Oak birds and saw at least 2 intividuals in the area.

29 November 1150. Checked the storage areas here and found ≥ stored acorns, despite the fact that the ground is literally littered with Black Oak acorns over here. The 2 acorns I did see no doubt are from the Black Oak group. I did see several birds up on the knoll between Bianca and LA2, but was unable to identify any (except for an unbanded ♀!).

Melanerpes formicivorus

Hastings Reservation, Monterey Co. Calif.

11 January 1230. Checked over at BLOMTWO, finding no stores or sign of birds.

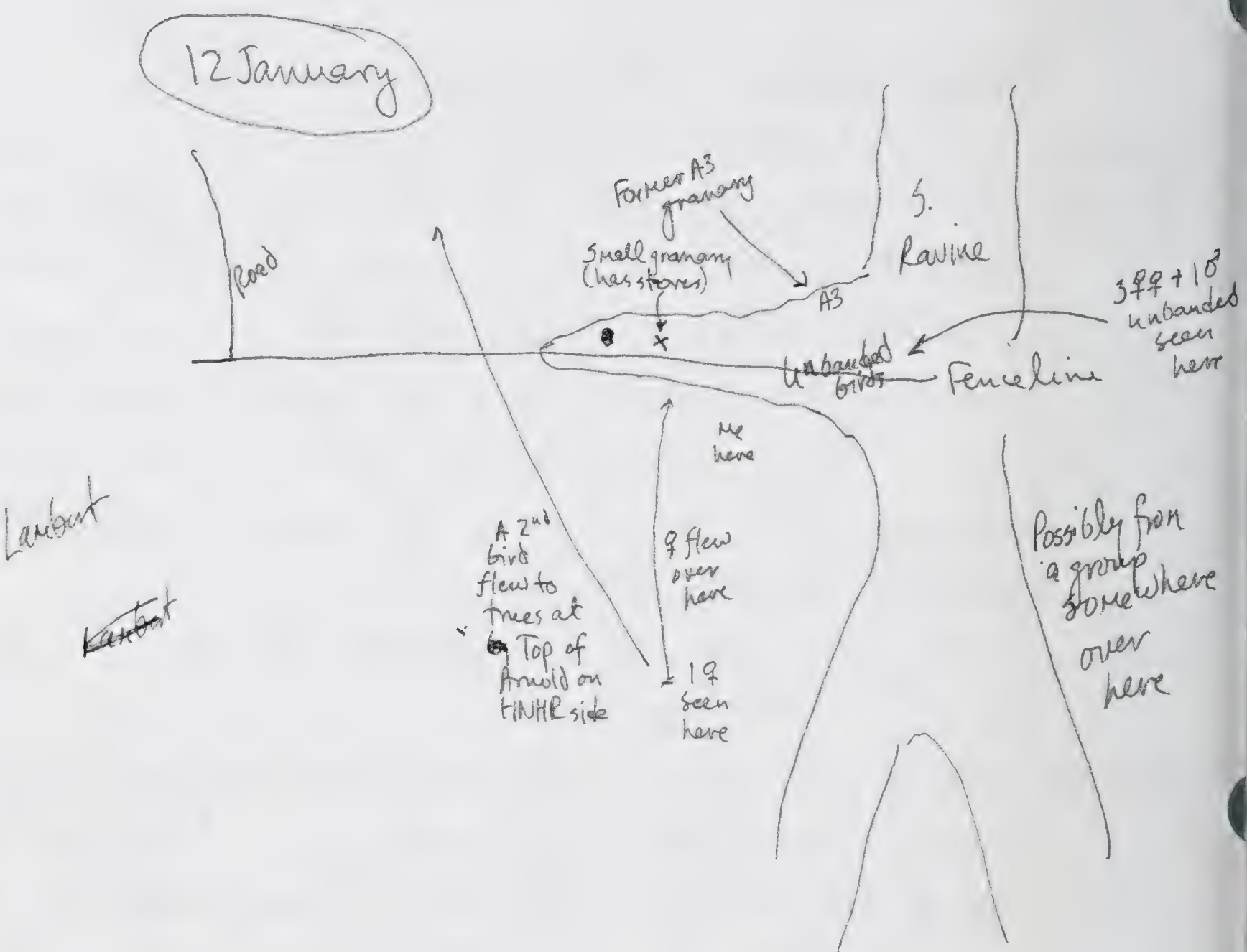
12 January 1240. Following a bird from the field where the lambert birds often hang out, I went over to the canyon at Arnold 3, where I identified 3 ♀♀ and 1 ♂, all unbanded. (My best guess is that they all come from the group up South Ravine - see map on back.) Also of interest, however, is that the small granary across the canyon at the fenceline here at A3 actually has some stored acorns in it!

1253. Now in with some of the unbanded birds are ♀ R/R #567 and ♂ M/Or- #566 from Arnold 1.

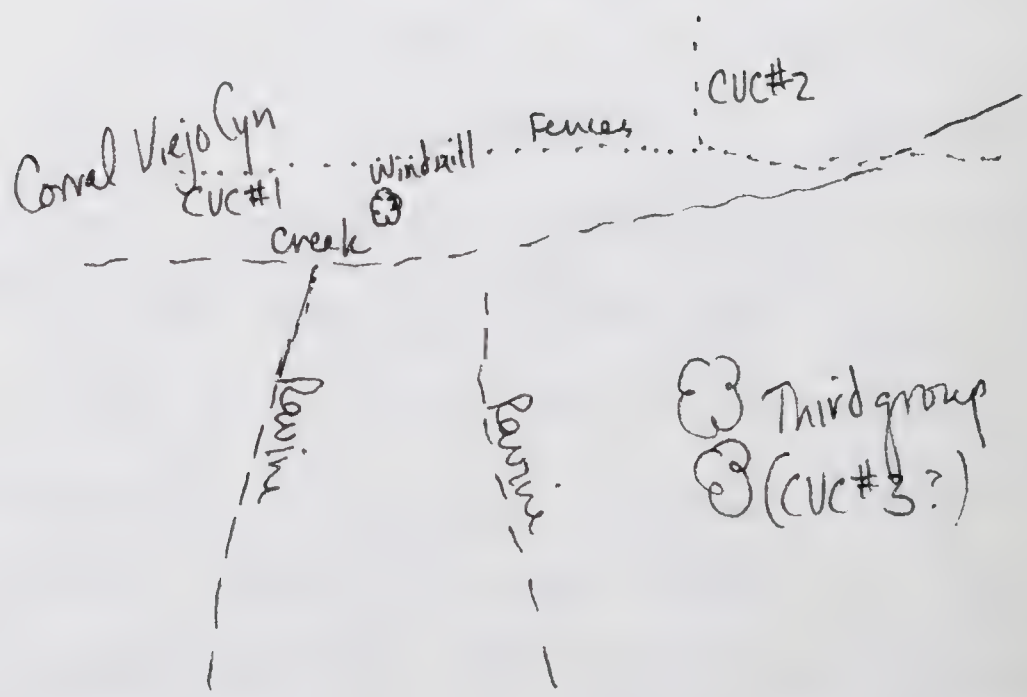
16 February 1630. Up on the Arnold with Ron setting an ambush at LA2 and at "Son of Black Oak", the new group at the far lower edge of the Black Oak field where Ron has discovered a new group consisting of at least 4 birds (at least 3 of whom are unbanded.) They've done quite a good job on the granary and have perhaps 1000 acorns stuffed in it. Quite a surprise!

9 March I wandered over to Corral Viejo Canyon and vicinity this morning, noting (1) several birds at both CVC #1 and #2, (2) a complete absense of birds or stores at the group (CVC #3?) that has the 2 large Valley Oaks in the canyon off on the HNtR side (see map on back) and (3) a similar dearth of life at Blomtwo. The apparent demise of CVC #3 is rather surprising since it's always seemed like a good territory and it is a fairly decent year. But possibly the loss of several key storage limbs there has been fatal....

12 January



9 March



Melanerpes formicivorus

Hastings Reservation, Monterey Co., Calif.

12 May 1500. Bird in the hole at Corral Viejo #1 who wouldn't come out - a nest for sure, though I don't know if they have eggs or babies.

15 May 1630. Checked the hole at Corral Viejo #1: 4 eggs.

17 May Pam reports seeing a bird at the far end of long field this morning, coming from the North and going off to the South. He stopped for a couple of minutes in a Sycamore where she saw ? M/yellow. The best possibility for this bird would seem to be ♂533 - one of the 2 birds who founded Gate in late December 1979 and then disappeared right away!

22 May 1415. At Corral Viejo #1 they have young babies (heard inside the hole).

23 May 620. Arriving a few minutes ago at Blonone, there is no activity here but what sounds rather like a Revolution of a sort over at Blontwo, complete with Garricks, drumming, group wakas, and so forth. Going over now to see what's up.

25 May 1645-1730. Sat around and walked around at PO Hill #1 hoping to see something, but failed. No sign at all of birds or a nest, as far as I could tell. However, they do seem to be pretty much out of stores, so perhaps I shouldn't really be expecting them to have a nest.

Just as I was leaving, 2 birds came and greeted each other in the central area. I waited a minute and then looked around again, but still couldn't find anything.

1800. Quitting again. Not a lot going on here, at any rate!

Melanerpes formicivorus

Hastings Reservation, Monterey Co., Calif.

10 June 1330. Banded the single baby at Corral Viejo #1 as #694. He weighed 92.5 gm and had a wing of 88 mm. This group does have stores remaining.

2 July 1215. A banded baby plus 1 or 2 adults at BLOMTWO; the baby was j DB-WH/MD WH-WH/DB or j DB-WH/M WH-DB/ whose identity isn't certain but who surely was j Green-WH/M Green-WH/Da #675 from 1500.

12 August Several birds over at BLOMTWO; still something going on there.

Melanerpes formicivorus

Buckeye — Hastings Reservation

29 March Purge: j620. Not seen after banding on 12 July 1980.

15 April 915. Plenty of stores but noone in any of the known holes up here.

26 April 1415. 2 birds flushed from the low hole in the granary; could be it unless they decide to screw up again on us.

27 April 1340. ♂ in hole: 6 eggs, not fresh.

28 April Watched from 1530-1730, during which time these birds pulled their same old tricks: i.e., a ♂ in the hole when I arrived sat looking out for about the 1st 40m before going down briefly and then leaving, following which nobody came to the hole at all, even though there were birds in the granary. I did see ♂234, but not at the hole: he came exploring over near where I was sitting. In short, Ron would appear to be right: these birds are not to be watched during incubation.

5 May 1610. Walked by, flushing a bird from the hole, in which there are young babies. (This means that the 6 eggs were a complete clutch, since otherwise the incubation period would have had to be 8 days or less.)

9 May 1100. Opened the nest, where they have 4 babies and 2 unhatched (and infertile) eggs. The babies were marked and weighed.

18 May Watched the nest for 1½ hrs from 1320-1450. The birds were around, but noone at all would go near the hole (there were babies calling inside, however). I saw ♀483, ♂234, and ♂619 here in the granary, however.

19 May Finally got a good ~~no~~ nest watch here from

Melanerpes formicivorus

Buckeye Nest Record — Hastings Reservation

27 April 1340 — 6 eggs

5 May 1610 — Eggs have hatched (nestlings heard)

9 May 1100 — 4 babies, 2 unhatched eggs (eggs removed)

	663 ① LG-Or	664 ② DB-Mv	665 ③ R-W	④ 666
9 May 1100	20.5	17.4	23.1	25.8
28 May 1300	80.0 (84)	77.8 (79)	94.9 (96)	87.8 (96)
Devel. sequence (worst)	3	4	2	1

12 June 1500 — 2nd nest found: 6 eggs, fresh

① 22.2×18.2 ② 21.6×17.0

③ 22.8×18.3 ④ 22.3×18.2

⑤ 22.5×18.6 ⑥ 22.2×18.5

15 June 1000 — Still 6 eggs

26 June 700 — 3 live babies, removed (see Notes)

1 dead baby, 2 pipped eggs.

	① W, RW	② W, LW	③ W, Back	All 3: W on head
26 June 700	2.5 gm	2.7	2.5	

Babies transplanted to Haystack-Blomquist

All eggs were fertile.

Melanerpes formicivorus

Buckeye — Hastings Reservation

(19 May) 930-1230. The birds (♀483, ♂234, ♂252, and ♂619) were fairly active and did a satisfactory amount of feeding.

20 May Did another nestwatch today from 1415-1700. They weren't nearly as active, and only the 2 adult ♂♂ fed.

At dusk I returned for roosting. The attempt wasn't altogether satisfactory: I missed the bands completely and was a little to far away to get the facial features, but I think it was ♂234 who roosted in the nest. This is based mostly on negative evidence, however, so I'll have to try again ASAP.

24 May Watched here from 800-1100, getting a good nestwatch in with lots of visits, except that the ♀ remains obviously quite wary of anyone being in the hide (she fed once, then returned twice more to the vicinity of the hole with food but did not feed, after sitting each time for a minute or two and deciding she didn't like the scene).

At dusk I returned, but nobody roosted in the nest, so it looks like we've blown our opportunity to get roosting here.

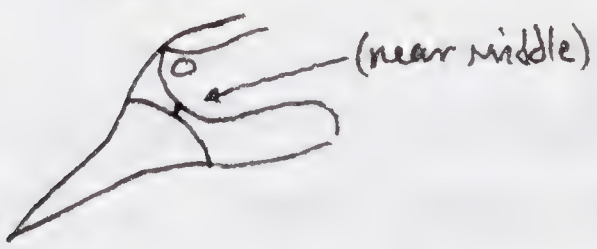
28 May 1300. Banded and bled the 4 babies here, who are #663-666.

4 June 800. Walked up and checked the other holes, but no sign of a 2nd nest as yet.

9 June 1620. A bird flushed from low out of the granary when I arrived - possibly indicative of a 2nd nest in the same hole. Otherwise,

8252

8234



Melanerpes formicivorus

Buckeye Hastings Reservation

(9 June) noone in any holes. This group has loads of acorns left, however - certainly enough to go for 2.

1635. On the way back there was noone in any hole but I saw j Red/Red #665 [do I have his bands mixed?] in the granary.

12 June Walked up here and flushed a bird out of one of the roost holes in the granary, prompting me to go back down and get the material necessary to open it. I did, and found 6 eggs, relatively fresh and all unusually small (such that they would all verge on being runts in a clutch with normal-sized eggs).

15 June Watched the nest from 635-955, seeing 1 inc. bout from both 6234 and 6252 and all 4 of the babies from the 1st nest, 2 of whom kept going into the hole while one of the ♂♂ was incubating. When I finished I checked the hole with the peeper, finding 6 eggs still inside.

16 June Watched from 645-945, but only had the ♀ in the nest when I came and no other visits. Otherwise, I saw all 4 babies and both adult ♂♂, but noone showed much interest in the nest.

21 June 2005. Unless someone who never looked out was inside when I arrived, noone roosted in the nest tonight. One would have to think that this doesn't bode well for this nest, unless they don't have to incubate on such hot days in the evening.

Melanerpes formicivorus

Buckeye Hastings Reservation

26 June 700. Went up here to check the nest only to discover the entire limb on the ground! I turned the thing around until I found the hole, and opened it to find the following:

1) 1 dead baby, just hatched

2) 2 eggs which had been hatching but stopped about midway

3) 3 live newly-hatched babies!

Obviously the limb had just fallen this morning! Since the babies had no future here I took them and brought them home and transplanted them to the nest at Haystack-Blanquist. In any case, this is our first failure due to the limb falling that we've ever had.

2 August Purge: 3424. Last seen 19 July 1980 (by Gwen!?) at the nest); gone by 8 Sept; Disappeared abt 13 Aug ± 1 Month.

3504. Last seen 23 March 1981, gone by the next date, circa 28 April ⇒ Dis. abt 9 April ± 2 wks.

Melanerpes formicivorus

Plaque — Hastings Reservation

13 January 1000. Counted stores: Plaque: 1392
2° tree: 123
Tel pole: ~200
} 1615.

Things are still pretty full here (I did include a limb that I just discovered a few weeks ago with ~100 acorns). I also took a sample of ~50 acorns from the granary and replaced them with others.

29 March Purge: ♀606. Last seen by Ron 23 Jan; gone by 2 March → Disappeared about 11 Feb 1981 ± 2 wks.

4 April 1343. Counted stores: Plaque: 764
2° tree: 73
} 857
Tel pole: ~20 (pretty well cleaned out)

Definitely going down. This even includes ~100 acorns in a high limb up in the Plaque tree that I'm not sure I've noticed before.

14 April A big day for Plaque. It begins sometime after lunch when Ron checked the Canyon Hole (=CH) and found 1 egg! He marked it, measured it, and returned it, and instigated a full-scale watch, which turned out to show nothing all day. However, shortly after this find Byron, watching down at the main lab area, discovers ♀496 pecking at what turns out to be a completely-eaten out shell of an Acorn W. egg, identical in size to the one still up in the nest, up in the 2° tree (just on one of the limbs). We recovered the eggshell and mulled over the various possibilities, not forgetting Byron's (at the

Melanerpes formicivorus

Plague Hastings Reservation

(14 April) time discounted) observation of a bird in the 2° tree on the afternoon of the 12th with "½ an egg in its bill." In any case, it would appear clear that egg-tossing has occurred, our guess being by ♀496, and that ♀494 has already laid 2-3 eggs, all but 1 of which has been tossed by ♀496.

15 April Watched the CH from 530-~~1530~~ 900; ♀496 came out only briefly entered; see did not go down into the hole. ♀494 laid an egg. See compilation, tone separately.

When relieved by Ron I ~~then~~ came down and checked the hole in the ~~Plag~~ 2° tree, led by Ron's comment that he had seen ♀496 go into it during his morning watch. And, lo and behold, there was an egg in it!

This definitely is a first - both ♀♀ competing for who will pick the nest hole! For now (since ♀496 could but didn't toss an egg out of the CH early this morning and nothing has happened there in a day) we're putting a full watch on the 2° tree hole.

1425. Still 2 eggs up in the CH.

1845. " " " " " " ". Watching CH for roosting.

16 April Today we watched both holes in the morning; nothing happened up at the canyon hole but ♀494 laid an egg in the hole in the 2° tree!

17 April Today both holes were again watched up until (go to p. 4)

Melanerpes formicivorus

Plaque Nest Record

14 April ~1300
~1430
15 April 650
16 April
17 April
1350

Hastings Reservation

1 egg in CH: ① 26.3 × 19.1
eggshell in 2° tree: 26.3 × 19.1
2nd egg in CH ② 26.4 × 20.4 (9494)
1st egg in 2° tree ① 25.5 × 18.8 (9496)
2nd egg in 2° tree ① [illegible] (9494)
3rd egg in 2° tree ③ 24.5 × 19.1
2° tree hole empty; Canyon hole still with 2 eggs.

23 April — Eggs 4 & 5 laid in new nest.
9 May 1630 — 3 babies, 2 fertile unhatched eggs [large embryos]

	#660 ① BP-W(n)	#661 ② Or-Brn	③ #662
9 May 1630	25.3	20.8	20.0
27 May 1630	79.0 (86)	76.8 (82)	86.4 (82)
Devel. sequence (on crown)	1	2	3

Melanerpes formicivorus

Plaque Hastings Reservation

(17 April) ~1000, at which time both ♀♀ went into the hole in the 2° tree and 1 of them (♀494?) laid another egg there. Later, however, at 1345, I first went to the Canyon Hole, where the 2 (cold) eggs are still sitting, and then checked the hole in the 2° tree, which had already been completely cleared out and was empty!

18 April Many watched the hole in the 2° tree this morning - nothing happened there. I checked the canyon hole at about 1130 and both eggs are still there.

23 April Put in some new wood chips in the hole in the 2° tree at 1100; the hole is otherwise still empty.

27 May 1630. Banded and bled the 3 babies as #660 to 662. See Ron's notes (and my nest record sheet) for details of the (ultimate) nest here.

8 June 715. Counted stores: Plaque tree: 245
2° tree : 15
} 260.

No obvious intact acorns remain in the telephone pole, though there may still be some in the bottom of the old nest hole.

1100. Climbed up to the '80 nesthole and cleaned out the crap left there by the various Starlings that were messing around there a couple weeks ago.

19 June Jim Griffin found j662 from here on the ground up by the Old Barn this morning. He's in pristine shape - not even thin; I have no idea what his problem was. In any case → Found dead, died about 19 June 1981.

Melanerpes formicivorus

Plague Hastings Reservation

15 August 1025. These birds are effectively out of stores - only a couple possibly entire ones are left.

Melanerpes formicivorus

Y Hastings Reservation

4 April 750. There were at least 2 birds in front of the barn when I came by at 700, but noone appears to be here now.

810. ♀ ub flew from over the knoll to the top of the sycamore right at the Y. She sat there for ~20s and then flew up to the Torrey Pines along the road to John's house.

9 April 810. Unbanded ♀ in one of the tall Sycamores; flew up to Plague.

14 April Pam reports the following observations from the Y area:

Two ♀♀ in locusts in front of Lower Barn, ~1740-1820↑. I was ub, the other ♀ Red/Yellow #623 (1st yr from 1500). Both apparently getting along together. Then a ♂ (not identified) comes by, and there's a fight (?) following which there's a single ♂ and ♀ hanging out together both in Lower Barnyard and in a couple other locals around the Y.

Looks good for a new group here!

15 April Pam reports seeing birds up on the knoll and in the Y area again this morning.

25 April Pam reports birds being in the area again this morning.

27 April 1100. ♀ ub landed over near the (unused) Valley Oak granary.

1630. 2 birds in the old granary here, going over to the side of School Hill above Eatefield: ♂ M/Red and ♀ M/ . Don't know who they are for sure, but likely candidates are ♂584 and ♀478, recently ousted from Blemore.

30 May 805. First seen at Pump and then going over to the Knoll is ♂ M Red-Dk/Dk-Red #564 from 1800.

Melanerpes formicivorus

Y Hastings Reservation

3 June 945. At least 2 birds in the Lower Barn area. While I was walking down a 3rd flew in from Plaque, and was chased.

1620. ♂ Blk-Yel/Dr #521 from Plaque here on top of the Knoll and over in the big Blue Oak above the Lower Barn.

1625. Meanwhile someone is giving a few Cavricks over by the Y '75 nest tree. I flush a bird from there, and then see 3 birds in a chase by the barnyard. 1 flies up by me, who turns out to be ♂521 again!

7 June Pam saw ♂571 from Gazebo up on the Knoll this morning; see Ron's notes for comments on this bird up the 2nd canyon as well.

8 June 730. 2 birds (at least) up on the Knoll.

18 June 815. j661 (from Plaque) along with 1 or 2 adults at the Lower Barn here.

20 June 650. Around the Lower Barn are ♂402 and j668 from School Hill and an unbanded ♀ (!). The ♀ is in back now while the others are in front, but with luck...

27 June 1817. At least 3 birds up on the Knoll together.

28 June 630. ≥4 birds here in front of Lower Barn. 1 is ♀ WnRDB #260 from School Hill; others are presumably SH also. Birds flew off back behind the Knoll.

905. Still 2 birds sitting in front of the Lower Barn.

10 September 700. A set of 6-8 birds, 1st by John's house and now by the Y. 1 is ♂ DB/Wn #660 (still ♂ type) from Plaque; also at least 1 ub ♂ and ♀. Birds not particularly together.

Walter D. Koenig

Melanerpes formicivorus

1500 — Hastings Reservation

14 January — 1230. Counted stores: Tree 1: 1503; Tree 2: 454 } 1957

Also took a sample of stored acorns; 41 from tree 2 and 14 from Tree 1 (and replaced them with my own).

4 April — 1515. Counted stores: Tree 1: 667; Tree 2: 70 } 737

Well on their way down!

14 April — Pam saw ♀623 at Y this evening - see Y notes.

18 April — 1730. Noone in any holes here.

24 April — 1015. " " " " ". I climbed up to last year's (successful) nest and moved a small dead limb that had fallen in front of it, partially obstructing the entrance.

30 April — 1500 has a nest; see Ron's notes for more details.

Purge: ♂♂492, 493, and 622: all 3 moved to watched group (Blomone) on 23 April.

31 May — Banded and bled the 4 babies here as #675-678 (time ~1500)

2 June — The latest change here is that within the last several days, ♂622 has apparently returned for good and is feeding the babies here at the nest.

♂622. Returned ~ 28 May.

18 June — 1030. Counted stores: Main tree: 185; 2° tree: 13 } 198.

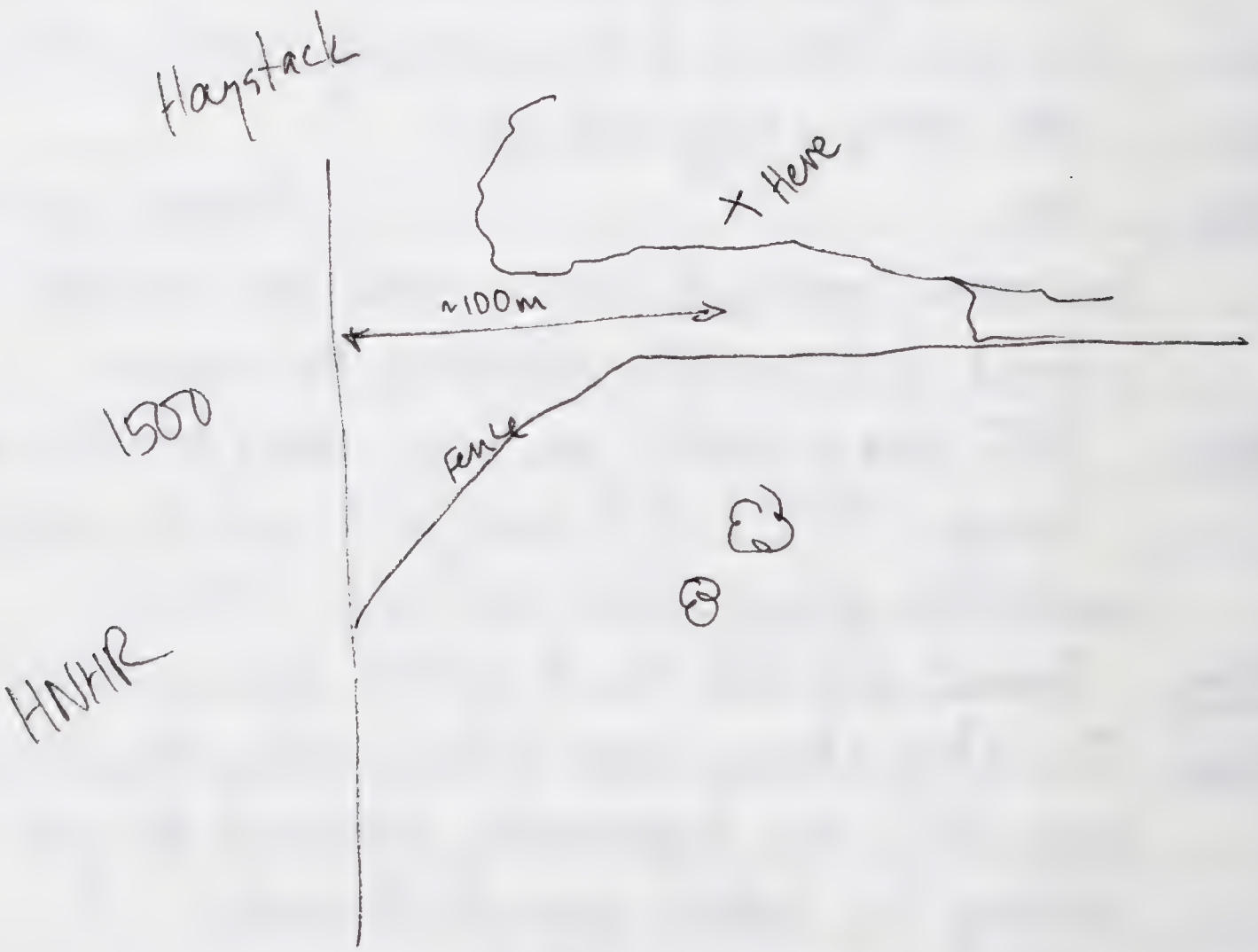
25 June — 709. ♂297 is in the Buckeye forest abutting Blomquist field about 100 m from the Hastings fenceline (see map on back). With him is j676; it also sounds like several other birds are in the trees behind him.

2[illegible] July — 1215. j675 over at BLOMTWO (apparently); see general M.f. notes.

15 August — 1115. No stores left here.

25 June

6297 + juv



Melanerpes formicivorus

1500 Nest Record — Hastings Reservation

6 eggs laid:
① 25.0 × 19.7 (laid 25 April)
② 25.2 × 20.3 (" 26 ")
③ 24.3 × 20.2 (" 27 ")
④ 24.5 × 20.1 (" 28 ")
⑤ 24.6 × 19.8 (" 29 ")
⑥ 24.7 × 19.6 (" 30 ")

11 May 1530 — All eggs hatched

(Birds not Marked)		675 ①R-Or	676 ②M-Blk	677 ③L6-Or	678 ④	⑤	⑥
	11 May 1530	14.5	13.3	11.0	9.8	4.5	not weighed
	17 May 1330	34.0	42.0	36.5	25.3	–	–
	31 May 1445	72.2 (71)	81.2 (82)	77.9 (80)	65.9 (62)		
	Devel. sequence (oldest)	2	1	3	4		

Melanerpes formicivorus

1800 (+75 in 2 nearby small trees = 1495) Hastings Reservation

14 January 1330. Counted stores: 1420 (all in Main tree). Also took a sample of 50 acorns, replacing them with my own.

29 March Purge: ♀563. This bird, last seen on 9 Nov. 1980 by Ron, is presumably the bird whose remains I found alongside the lane by the crossing on 17 Nov (see general M.f. notes for 1980), ~~Thus: Found d~~ since she was the only bird absent from the area after that time: Thus, Found dead, died about 11 Nov. 1980.

4 April 1530. Counted stores: ~~345~~. 406.

18 April 1730. Noone in any holes here.

24 April 1000. Noone in any holes in the Main tree.

30 May 805. ♂564 seen over near the Y (between Y and Pump). See Y notes.

10 June 1700. Banded and bled the 2 babies here as #695 and 696.

11 June As part of our all-day watch here, I watched from 1400-1700.

18 June 1045. Counted stores: 168.

15 August 1100. No stores left here.

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1800 Nest Record — Hastings Reservation

4 eggs laid (see Ron's notes for more details).
1st egg laid 6 May
One egg disappeared right before hatching of the others.

10 June 1700		2 babies
	① 695	② 696
10 June 1700	85.0 (78)	84.0 (67)
Devel. sequence (crown)	1	2

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Haystack-Blomquist Hastings Reservation

15 January 1230. Counted stores: 1959; I also took a sample of 50 acorns from the tree.

29 March Purge: 8576. Last seen 2 Dec. 1980 (Ron), gone by 21 Jan 1981 (Ron): Disappeared about 27 Dec. ± 2 wks.

5 April 945. Several birds (from 1800?) in lower portion of the territory by nest tree. ♀7484 in granary. ♂Or/M #173 here also. But lots of riff-raff on the peripheries...
1000. Counted stores: 960.

23 April 1420. Checked the nesthole here, where Mary had seen some activity, but nothing as yet.

7 May Ron found the nest here this morning - for the 1st time, it's not in the same old hole!

8 May 1030. Climbed up and opened the hole, which is a mere 2½ or so down below 4" of wood. After ~2 hrs of very painful hanging and cutting, I got down to the 5 eggs. One had a hairline crack which may have been my fault, though I don't know how. In any case, it wasn't leaking or anything, so maybe it will be alright.

15 May 1600. Checked the nest: still 5 eggs; not hatched yet.

22 May 1400. Checked the nest: 3 babies, 2 noticeably larger than the 3rd, and 1 unhatched egg - the one with the hairline crack. It developed but didn't hatch; but I have to admit that at this point I don't see how I could have been the cause of the problem. The babies were ~6 dys old.

9 June 1400. Climbed up to band the babies, only to find that the nest was entirely empty! Since we haven't been watching

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Haystack-Blomquist Nest Record

8 May 1030	5 eggs (1 with hairline crack but still ok)
15 May 1600	5 eggs.
22 May 1400	3 babies, 2 larger than the 3rd 1 unhatched egg (the one w/ the hairline crack - it developed but didn't hatch)
9 June 1400	Nest empty; failed
18 June 1400	New hole found: 4 eggs.
26 June 745	3 babies, no sign of 4th egg
	3 babies added from Buckeye

Hastings Reservation

	711 DB-LP ①	712 DB ②	③	Buckeye babies (w/ on head) ④ WRW	⑤ WLW	⑥ WBack
26 June 745	8.3 ?	7.6 ?	4.2 ?	2.5	2.7	2.5
28 June 840	16.7	14.2	4.3	–	–	–
18 July 1700	69.4 (79)	70.1 (73)	–			

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Haystack-Blomquist Hastings Reservation 1

(9 June) here at all, we unfortunately have no idea what went wrong. I will, however, check the granary and the other holes.

Counted stores: 635. No cause to fail there.

18 June 1400. After seeing a bird up in the old nesthole both going and returning from lower Haystack I opened it up and found 4 eggs.

26 June 745. Came up here to check the nest and to add, if reasonable, the 3 babies from the recently fallen nest at Buckeye. The babies here were fine: there were 3, 2 of whom were particularly healthy, and no sign of the 4th egg. Although they were notably larger and healthier than the 3 Buckeye babies, I added them anyway.

The indigenous babies were marked but not individually.

28 June 840. Checked the nest. Only the 3 Hay-Blom babies remain; they were weighed and marked.

10 July 1930. Babies heard calling from the hole here.

18 July 1700. Banded and bled the 2 babies as #711 and 712. Inside the nest I found some remains of a demolished, ~~not~~ not-too-large Sceloporus, which had apparently been fed to the babies!

*

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Lower Haystack — Hastings Reservation

15 January 1330. Counted stores: Main tree: 2388 / 2° tree: 80 } 2468.

Also I took a sample of 50 acorns.

29 March Purge: ♂511. Last seen on 3 June 1980, when he came and fed the babies several times (the only times he was seen at the nest, apparently). Gone on 4 June and thereafter. (♂511 was seen during nest watches on 2 May and 2 June, however). Not seen 30 June, 1 July (Ron): Disappeared about 16 June ± 2 weeks.

j♂588 and j♀589: Last seen 10 Oct. 1980 (me); gone by 20 Dec. (Ron): Disappeared about 15 Nov ± 1 month.

5 April 1015. Ron and I came up here to see what's up after Ron reported some revolution activity yesterday. ♀515 is definitely gone, while the other 3 residents are all here along with ~6-9 ♀♀ vieing for ♀515's place. Most are unbanded, but ♀509 (from Gazebo) and ♀523 (from School Hill) are involved, though not winning at the moment. ♀587 (the 1st yr bird here) is still here and fighting it out, at least for the moment

1220. We now have 2 nets up in the granary.

1250. Caught ♀587 in net

1600. I've been gone much of the time but by now we've caught ♀523 plus 2 unbanded ♀♀, the latter of whom (♀642) may be the apparent heir at this point. However, things are very quiet at the moment

1630. Leaving. Still modest activity, but it's no longer clear who (if anyone) is in the lead. A clear time to

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Lower Haystack — Hastings Reservation

(5 April) leave and try again tomorrow (hoping that one of the banded ♀♀ [or 2!] will win all the while!).

For more details on this whole day, see Ron's notes.

6 April 930. Arrived. Lots of activity still. ①♀Or-DBlM#642 in 2° tree. ②♂307 flies off to sap tree; ③♂461 in 2° tree with ♀642 briefly. ④♀509 (Gazebo) in 2° tree also, near ♀642.

937. ♀642 in Main Tree (MT).

940. ♀523 (Sch. Hill) over in Tel Pole; clearly peripheral. ♀509 still in 2°T, ♂461 comes over occasionally. At least 1 ub ♀ in main tree; some Carricks. ♀642 also still in 2° tree. ♂461 flying back and forth, waking to everyone.

944. ⑤♀587 is still in MT viciously attacking other ♀♀.

947. It appears as though a coalition of 2 ub ♀♀ may be in charge of things in the MT. It's not real clear what that means, since ♂307 isn't around at the moment and ♂461 is spending a lot of his time over in the 2°Tree, but that's the impression I have at the moment. Going to set up net.

1000. Net up. While there, I managed to ~~quiet~~ quiet things down a bit.

Meanwhile: Purge: ♀515. Last seen 17 March, gone by 4 April → Disappeared about 26 March ± 1 week.

1002. Both ♂♂ back in MT. 2 ub ♀ there also. ♀642 still in 2°T.

1005. Definite hope: ♀642, still over in the Tel Pole, was joined by both ♂♂, both of whom mounted her in succession! She then sat and preened while both ♂♂ sat there for ~3 min, after which ♂307 mounted her again at least twice! Shortly thereafter everyone flew off.

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(6 April) 1010. Meanwhile, ♀587 is still in the MT.

1012. ♀642 solicits the ♂♂ quite hard every time they fly over to the 2°T or the Tel Pole.

1018. ♀509 is still here - right now in 2°T along with ♀642; the latter seems to be in control of that area, however.

1023. Well, the story in the MT seems to be that it's being defended most successfully by ♀587 and a coalition of 2 ub ♀♀. However, at least as of now, ♀587 is dominant over the pair of ub birds (both of them, sitting within inches of each other, chattered submissively and gave ground when ♀587 flew over to them). One again, however, the ♂♂ seem to be interacting more with ♀642 over in the 2° tree, so it's not real clear what's up yet. There are at least 2-3 other occasional visitors +/or peripheral birds involved as well.

1028. ♀523 is still here but definitely peripheral.

1033. ♀587 is still the bird who hangs close to the ♂♂ when they're together in the MT.

1036. ♀523 is in the VO up by Me Garricking.

1038. Some good chases with 4+ birds.

1039. New life for School Hill! ◎♀524 now here, initially seen getting shagged out of the 2°T by ♀642.

1042. Things are heating up: there are 2 birds on the periphery Garricking while lots of chasing takes place in the main arena.

1050. ♀587 is still trying to dissuade the 2 ub ♀♀ in the MT.

1053. Another new participant: ◎♀ Yellow/LG M1 #601 from Gate, over in the falling tree up by UHay.

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(6 April) 1130. Caught ♀509 in the net as she was flying ♀ into the MT. Measured and released her.

1140. As a Cooper's Hawk came cruising by being chased by the Kestrel, at least 2-3 birds gave alarm calls, while everyone shut up and hid. Why, if alarm calling is nepotism, should birds at Revolutions give them? to warn their direct competitors?

1145. Well, at the moment I'd still hesitate to call this one. The 2 ub ♀♀ are clearly ahead in that they are in charge of the MT, but the real power still to be dealt with there is ♀587. Meanwhile, ♀642's advantage may actually be that she need not contend (at least at the moment) with ♀587. Even though ♀642 is off on the periphery, she appears to be the only bird that the ♂♂ are fairly chummy with (other than ♀587); I would thus still have to refrain from counting her out. Other contenders are several and there is still a lot of chasing going on, so things are definitely not over here yet.

1154. More good news: at least 1 ub ♀ in the MT is now being chased by both of the ♂♂! Meanwhile, ♂461 (at least) is still going over to ♀642 in the 2° Tree every so often and is still quite friendly with her. The ♂♂ really are now (all of a sudden?) doing a lot of chasing of 1 or more ♀♀ in the MT. However, ♀587 is definitely not one of those being chased.

1230. Counted stores: 1342.

Leaving. Still lots going on here.

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(6 April) 2245. Ron has filled me in on the remainder of the day's activities (he arrived just as I was leaving and stayed until late in the afternoon). For details, see his notes. In brief, ♀524, of all birds and against all odds, appeared to ~~have~~ won the whole sweepstakes by about the time Ron began watching seriously at ~1500. This is quite amazing, considering that she didn't even arrive until ~1030 this morning. However, at this point I should mention that while I was taking down the net at about 1245, ♀524 was in the MT, getting chased (what seemed like handily!) by ♀587. Ron, however, noted by 1500 that ♀524, apparently on brute strength alone, had taken over and had begun to be mounted by the ♂♂, while ♀587 had at last been relegated off onto the periphery. By the time Ron left at ~1800 the 3 birds (the 2 ♂♂ and ♀524) were acting like they'd been together all their lives.

This is truly an incredible (apparent) ending for this revolution: clearly brute force can more than make up for poor timing (Ron reports ♀524 to have been very aggressive!) Will ♀523 return to join her? For more details on all this, see Ron's notes.

Ron also caught one more unbanded ♀, now ♀643 (apparently 1st-yr).

9 April 1630. Things fairly quiet; ♂307, ♀604 seen. Looks solid for the School Hill ♂♂ - there are several here, eating acorns and generally acting at home.

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(9 April) 1635. ③♀ M/DP #524 seen.

16 April 1145. ①♀ Red-WR/HR #604 in granary; she gave 2 short Geanicks. Not a lot of activity; some sapsucking, otherwise there appears to be 1 intruder and that's it.

1200. ②♂ DB-WR/[illegible] #461 here. ⑤♂ M/DB. #307. ④♀ M/DB #524.

23 April 1430. ♀523* flushed out of the 1980 nest hole! I quick climbed up and opened it: fortunately, nothing yet. But the time is drawing near! (*♀ M/[illegible] seen.)

24 April 550. Watching granary and '80 nest hole.

557. Someone here Geanicking (in large Valley Oak up the hill).

605. 4 birds here now.

615. ①♂ M #307; ②♀ DG-BP(n)/WH #524. (Wing Str. on ♂307 seen).

620. Intruder: unbanded ♂ here, being chased.

630. ③♂ M/LB-WH #461. Someone is Geanicking persistently up in the VO up the hill. ④♀ M/Red-DB DB/ #523.

639. The bird up the hill just Geanicked 14 times in the last 60s.

645. ♀ intruder here; chased sofort. Still someone Geanicking off in the periphery (one of the younger set of Sch. Hill ♀♀?)

720. Just went out and checked the bird Geanicking up the hill (she continues to set new records: I just counted 30 geanicks in 1 min!). She is ♀ Red-WH/ #604. Interestingly, the other birds just ignore her as far as I can tell. In any case, I'd say the odds of her staying and breeding here along with her older sibs are on the low side.

728. The birds were just over checking out the old nest hole in the Blue Oak.

810. A bird (presumably ♀604) is still geanicking persistently off in the periphery.

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(24 April) 818. Bird at the Blue Oak hole again. This seems to be the only hole anyone's paying attention to at the moment.

830. Went over and checked the Blue Oak hole: nothing yet, and it's not really prepared for eggs yet either.

900. ♀604 still off on the periphery. Carrying every 2-5s.

930. That's it for now. Birds are interested in holes, but I think it will be a little while yet before they actually try to nest.

27 April Arrived at 600, only to see a ♀ looking out of the '80 nest hole! I immediately climbed up and checked, but nothing in it yet (whew!).

620. Now watching.

650. Birds have finally returned: ①♂307 and ②♀523; ③♀524

750. ④♂461. Some more interest in the '80 nest hole.

845. Not much else going on. ♀604 definitely gone; these 4 are settled. I bet they'll nest in the '80 nest hole within the next week - but not today.

900. Leaving.

29 April 600. Watching. Ron over in far area. Noone in any holes. ①♂461 here; also ②♂307; ③♀524; ④♀523. Also at least 1 intruder hanging around, being chased.

800. ♀524 went into the '79 nest hole for a short time. Some interest has been shown in both holes, particularly this one.

809. Brief mounting: ♂307 and ♀523. A 3rd bird appeared right away, however.

819. A ♀ (not sure who) was in the Blue Oak hole for a minute; ♂461 hung outside for 20s or so while she was inside.

830. ♀523 went into the '79 hole; left after ~45s.

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(29 April) 840. Someone at the Blue Oak hole again.

936. I made a new cut in the '79 hole; also Ron checked the Blue Oak hole. Both were empty.

30 April Add: ♀♀523 and 524. Both joined this group on 6 April following a tour de force by ♀524, who singlehandedly paved the way for a School Hill victory. Their younger sisters (♀602 and ♀604) also both were here for awhile, now seem not to be staying here, although ♀604 is still hanging around in the area wishing she could!

3 May 900. Watching the '80 nesthole, where ♀523 laid this morning.

916. ♀524 lands at hole, enters. Followed fairly closely by ♂461, who also lands at the hole, dips in, hangs around for ~20s while ♀523 comes and lands at the hole, dips in and then leaves w/o entering. ~10s later ♂461 leaves. Finally, after another 20-30s, ♀524 looks out and leaves, w/o the egg.

940. At least it's not over yet: ♀524 didn't lay an egg (only 1 in hole).

1043. ♀523 flew to hole twice; left both times w/o entering.

1050. ♂307 flew to the hole 3 times, entering each time. (about 2 m apart). The 1st 2 times he removed fairly large chunks of "DAP" I'd inadvertently left in the hole. The

* 3rd time, he tossed the egg!! I did not mistake the identity! In between his 1st and 2nd visit, ♀524 came to the hole, but did not enter. Wow! The plot thickens!!

1110. The hole is indeed empty. I did not make this up.

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(3 May) Unfortunately, I have no idea what's become of the egg; I looked around but could not find it in the tree. Incredible. In any case, there's nothing more to watch now, so going home. (The big question is, has ♂307 been following ♀524, and so perhaps, not having mated with her yet, "know" that the egg wasn't fathered by him? Wow. And again wow. This could take some figuring out!

4 May This morning we really blitzed this group: I watched from the hide, Mary watched the far holes (just in case), and Ron watched from up on the hillside to get behavioral data. ~~Also~~ Plus, the movie camera is set and ready to record anyone pulling any funny business at the hole. As of now (800), however, nothing has happened! ♀604 has been hanging around Garricking and apparently entered the west hole over by Mary briefly. However, noone has so much as looked at a hole here in the granary. So perhaps we can write off ♂307's egg tossing as tossing an egg from a one of their "practice" nests; i.e., these birds aren't quite ready to do it yet after all, and ♂307 really was just cleaning out the hole for subsequent potential use.

(By the way, the ♂307-♀524 consort idea doesn't seem to work [see Ron's notes]; and even if it ~~do~~ did I would find it really hard to accept that ♂♂ have things worked out so well that they could toss out an egg they "knew" wasn't theirs!)

(While I'm on the subject I should note that, in

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(4 May) retrospect, when the tossing occurred yesterday, I was concentrating on (1) the egg and (2) the crown of the bird, in order to make sure it was a ♂ and that I had not somehow confused the bird for ♀524 [who has the M band in the same place]. As a result, I no longer recollect for sure having seen the wing streamer. Thus, solely on that basis, I have to admit a small possibility that it was ♂461 who tossed the egg rather than ♂307. However, for the reason mentioned above, I think that a "related ♂♂" egg-tossing [analogous to the ♀♀] is unlikely in either case.)

815. ♀524 took a look into (but did not enter) the '79 nest hole.

830
~~815~~. Leaving. No egg laid today anywhere! Yesterday may have been a false start after all!

5 May 550. Back again, this time with Janet watching the far holes.

620. A bird (presumably ♀604) Carricking all over on the periphery again.

630. I just counted 36 Carricks in 2 min from up there (♀604). The birds down here just ignore her!

820. Nothing at all going on at the holes in the granary. There was a little more action over at the roost hole where Janet's watching, but nothing too suggestive.

1020. After hearing what happened at the roost hole (♀524 was in at 810 or so) I went down, got the ladder, and opened the hole (which is deep!), but nothing in it.

6 May 550. At it again, this time with Mary watching the far area.

620. Ub ♀ intruder here; chased by ♀524. Bird being chased by several individuals now.

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(6 May) 800. A little more interest in the holes (both of them) than yesterday, but noone entered them. Going to check with Mary.

7 May 545. Here we go again. With Byron at the far hole.

622. ♀524 enters '79 nest hole. 625. ♂461 comes, dips in several times, goes in briefly, looks out right away, leaves, followed at 626 by the ♀. This could have been it.

636. ♀524 entered hole again for ~30s. ♀523 is nearby. Meanwhile, someone, presumably ♀604, is back Garricking on the upper periphery of the territory.

658. ♀524 at hole again briefly; did not enter.

718. ♀604 is here in the 2° tree drumming.

726. One of the ♀♀ zipped into the hole so fast I couldn't tell who she was; she left after 30s with nothing in her bill.

728. ♀524 entered hole; ♂461 landed at the hole just as she went in, left after 25s w/o entering. ♀524 then looked out and left.

735. ♂307 looked into the hole, left w/o entering.

754. ♀524 entered hole again for ~2m. Both the ♂♂ and possibly also ♀523 stopped at the hole briefly, but did not enter.

805. ♀524 enters yet again, leaves after 1m. ♂461 in the hole area.

815. Checked hole: nothing yet - but this time it really should be soon!

8 May Watched the roost hole from 1045-1215 following the laying of a runt egg there by ♀524 this morning (the egg was broken by Ron [it had a very soft shell, an airpocket in the center, and was all yolk!] and replaced with one of our own runts from last year). Noone at all came to

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(8 May) the hole, however, so the attempt was abandoned. (It would of course be interesting to know what happens to it, but on the other hand...)

9 May 555. Watching. Ron over at the roost hole.

601. ♂461 checking out and entering the '80 nest hole.

♀524 in the '80 hole (I missed her entrance, but was between 555-601).

602. ♀523 at '80 hole; leaves. Then ♂461 comes again, looks in and leaves. Meanwhile ♂307 is on the limb below the '79 hole.

607. ♂461 enters '80 hole for 10s, leaves when ♀523 lands at hole, leaves w/o entering.
611. ♂461 at hole, tips in & leaves
612. ♂461 " " , leaves w/o entering.
613. ♀524 looking out of hole; ♀523 lower on limb.
616. ♂461 at hole, tips in, enters, climbs out at 618.
618. ♀523 looks in hole, flies off.
620. ♂461 at hole, tips in, enters, looks out, climbs out.
621. ♀524 climbs out and leaves.
625. ♀524 at the hole, enters.
627. ♂461 at hole, enters, looks out, leaves
628. ♀524 looks out and leaves.
640. Going to check the hole: ♀524 laid: 25.9×20.4
722. ♀524 at hole, leaves w/o entering
726. ♂307 at hole, leaves " "
726. ♀524 at hole, leaves. " "
730. ♀524 " " , " " "
758. ♀524 " " , " " "
922~~827~~. ♀524 " " , " " "
929. ♀524 " " , " " "
932. ♂461 at hole, " " "
934. ♀523 at hole, looks in, leaves w/o entering.
952. Leaving. Janet taking over.

In summary, ♀524 laid her egg, probably between 555 - 621, after which she (but noone else) entered the hole once. While she was inside, ♂461 kept a close lookout, entering the hole on 3 occasions. Otherwise, everyone showed some interest.

Over at the other hole, the nest was still there and neither of the 2 ♀♀ came by. So we now begin the long watch to discover ♀523's next move!

10 May Ron watched up to 545, then I took over watching (go to p.14)

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Lower Haystack Nest Record		Hastings Reservation
3 May	630	♀523 laid egg ('80 hole)
	1050	egg tossed by ♂307
8 May		♀524 laid runt egg in roosthole
9 May	600	♀524 laid in '80 hole ① 25.9 × 20.4
10 May	?	Bird [♀524 we presume] laid in roost hole: 26.0 × 21.1
"	1117	Egg in '80 hole (laid by ♀524) tossed by ♀523.
11 May	600	♀524 laid again in '80 hole: ②26.0 × 21.0
11 May		Gone by late afternoon; most likely tossed between 1300-1600.
12 May	606-632	♀524 laid: 26.7 × 20.8
"	759	Tossed by ♀523 (and eaten)
13 May	630	Both birds laid: ① 21.4 × 17.3 ② 26.8 × 20.8
14 May		Both birds laid again: ③ 26.4 × 20.3 (♀523) ④ 27.3 × 25.0 (♀524)
15 May		Only 1 egg laid (presumed ♀523) ⑤ 25.2 × 20.9

~~18 June 1330~~

	① 699 Mv-Blk	② 700	③ 701	④
3 June 1710 (RLM)	34.0	35.5	37.2	20.0
18 June 1330	71.2 (78)	76.0 (78)	78.0 (89)	Gone
Devel. sequence (crown)	3	2	1	

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(10 May) the hole while Ron ~~xx~~ went up the hill. So far (715) it's been a big zero - noone has been near the nest hole.

731. ♀524 enters hole; in for ~30s, then climbs out and leaves.

800. Ron going to check roost hole; I check nest hole, but only the 1 egg is there still.

Well, a bird (♀524, no doubt) laid in the far (roost) hole! Presumably because of our disturbance very early. (The runt is still there also).

910. ♀523 enters '79 hole; ♀524 looks in, leaves; ♀523 now looking out. 913: leaves. 922. ♀523 preening at lip of '79 hole.

925. ♀523 at '79 hole; ♀524 enters '80 hole; ♀523 leaves, ♂307 looks into the '79 hole, leaves. ♀524 leaves after ~1 min.

930. Janet taking over.

* Amazingly enough, Janet watched and saw ♀523 chuck out the egg! We got it! (She doesn't actually know what she did with the egg.)

1900. Ron and I checked all the holes ('79, '80, Blue Oak, and roost holes). All are empty except the roost hole where the egg laid today is still there. Now I'm watching here just to see if something goes on here at roosting.

Well - quite amusing: 6 birds roosted in the hole as best
* I could tell! This clearly included all 4 residents, ♀604, plus a 6th mystery bird.* This proves, I guess, that nongroup members can roost in a hole where they don't belong (one of the birds was pecked as he/she entered, but what can they do?) The egg, in any case, was not tossed.

(13 May) see Ron's notes!

*Ron reports today that he suspects ♂571 from (formerly) Gazebo.

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11 May Watched the granary hole; Ron is on the hillside while Janet is over at the roost hole. This went on through the morning (see compilation on back) during which time ♀524 laid again and ♀523 came close to entering but never did. We proceeded to put a complete watch on the hole, but despite our efforts we missed the egg-tossing, which did in fact occur as the egg was gone when Ron checked the hole in the evening. In any case, the nest is again empty.

12 May Watched the hole again from 505-800 (see back); ♀524 again laid but this time we saw it all: ♀523 tossed the egg, following which Ron watched it get eaten by the group members (I managed to find the egg stuck up in the tree just after it was removed [it was still intact]; I measured it and took some pictures of it and then put it back. Ron then sat with the camera and watched it get devoured.)

A success! Meanwhile, Ron checked the other holes to confirm that ♀523 isn't laying somewhere else. The egg laid by ♀524 in the roost hole on the 10th is still there.

13 May Watched from 520-910; both birds laid simultaneously today so it's probably all over. ♀523's (presumed) egg was pretty small so it's possible that she might beg them both; Ron stayed on for a while longer just in case.

Both Lay.

520. watching.
624. ♀524 enters
625. 8461 here, ♀523 also.
626. ♀523 enters. Now 8461 enters, Leaves.
627. 8307 here also, he leaves.
628. 8307 Looking in, Leaves.
631. ♀524, then ♀523 leave together.
638. ♀524 enters.
642. 8461 here, L w/o E. ♀ Leaves
645. ♀523 here, but L w/o E.
646 ♀524 enters
8461 here, Leaves.
651. ♀524 LO, goes down.
8461 here. Leaves. ♀ Leaves
728. 8461 enters. ♀524 comes to hole, Leaves. ♂ Leaves.

11 May (from tape)

506. Watching the granary
535. ♀604 in 2° tree Garricking, etc.
544. ♀524 at H (='80 nesthole) briefly; L w/o E (=leaves w/o entering)
552. ♀524 Enters
555. ♂461 LI & E (=looks in & enters); leaves; Enters again
600. ♂461 climbs out, leaves at 602.
603. ♂461 here again.
605. ♀523 in vicinity looking at hole,
611. ♀524 LO (=looks out); goes back down
613. ♂461 here, Looks in. Enters, leaves.
616. ♂461 here, Enters, LO, leaves at 621.
621. ♀ LO, ~~goes back down~~. leaves.
629. ♀524 at hole, but L w/o E.
~~630. ♀524 leaves~~

♀524 lays

718. ♀524 at hole, L w/o E.
726. ♀524 " " , L w/o E.
746. ♀524 " " . Enters
~~747~~. ♀523 at hole, L w/o E.
748. ♂307 looks in, " " ".
748. ♂461 here, Enters.
749. Both birds Leave; ♀ 1st
750. ♀523 Looks in, L w/o E after 2 min!
758. ♀524 here briefly.
759. ♀523 at hole again, L w/o E.
802. ♀524 here, L w/o E.
804. ♀524 Enters.
804. ♂461 here, L w/o E.
806. ♀524 L.
815. ♀524 Enters
817. ♀523 here but L w/o E.
819. ♀524 L.
819. ♀523 here, L w/o E.
834. ♀523 " , L w/o E.
840. ♀523 dips in for 2 M, then L w/o E.
840. ♂307 here, L w/o E.
842. ♀524 here, " " "
900. Hole check: ♀524 laid.
926. ♀524 here, L w/o E.
1011. ♀524 enters
1012. ♂461 at hole, L w/o E.
1013. ♀ LO, Leaves at 1015
1030. ♀524 enters
1033. ♂461 at hole.
1035. ♀ LO, ♂ Leaves, ♀ leaves
1045. Leaving: Janet taking over.

11 May PM (egg prob. already tossed)

1555. Relieved Byron at granary
1655. ♀524 at hole, Leaves w/o E.
1700. Ron taking over.

12 May (from tape)

505. Watching granary
606. ♀524 Enters.
607. ♂461 here, L w/o E.
610. ♂461 " , Enters, LO
612. ♂461 Leaves.
614. ♂461 dips, Enters, LO, leaves.
617 ♀523 at hole, L w/o E.
618. ♂461 enters, LO.
620. ♂ leaves.
620. ♀523 here, leaves after sitting here preening for several min.
623. ♂461 here, L w/o E.
624. ♂461 here, Enters. climbs out, Enters again (♀523 here briefly)
626. ♂461 Leaves.
627. ♀523 here, L w/o E.
628. All 4 birds here (at hole).
629. ♂461 enters, LO, leaves
~~632. ♂461~~

♀524 lays

632. ♀524 leaves
724. ~~646~~ (?). ♀523 here for ~2 M, ♂307 next to her; both looks in but L w/o E.
757. ♀524 in hole; ♀523 here but L w/o E.
♀524 leaves.
756. Both ♀523 and ♂307 here again.
♂307 pushes his way in & Enters
757. ♀523 enters.
758. ♂307 leaves.
* → 759. ♀523 Leaves with the egg!
Watch stopped: egg found, measured (♀523 put in on a limb intact).

Melanerpes formicivorus

Lower Haystack — Hastings Reservation

(13 May) 732. ♀524 at hole, L w/o E.
800. Hole checked: 2 eggs.
812. Watching again
858. ♀524 at hole, L w/o E.
907. ♀524 " " " " "
910. Leaving: Ron taking over.

9 June 1530. Counted stores: 620. In good shape, as expected.

18 June 1330. Banded and bled the 3 babies here as #699-701.

25 June Bad news here: after Mary saw no visits a day or 2 ago Ron checked the nest, finding the decomposing remains of j700! Clearly the nest failed: perhaps the others were predated? In any case, all 3 of these are now "Died before fledging."

10 July 1920. Nobody in any holes here.

Effort expended at Lower Haystack for Egg Tossing, 15 April - 14 May

	Me	Ron	Mary	Janet	Byron	Total
Est hours spent watching	46	68	17	20	9	160
Trips up to the group (transit time RT ~45 min ~~Distance~~)	18 (13.5 h)	25 (16.5 h)	7 (5 hr)	8 (6 hr)	4 (3 hr)	62 (44 hr)
Miles walked (RT distance = 1.75 mi)	32 ~~31.5~~	45	13	15	7	112
Misc. Hours (camera, sawing open holes)	3	-	-	-	-	3
Trees climbed	25	26	-	-	-	51
Total Time (hr)	63 ~~62.5~~	85	22 ~~24~~	26 ~~28~~	12	208 ~~212~~ hr.

Results: 4 eggs were tossed, 3 of which were actually observed. 1 was observed being eaten.

~~1980~~ 1981 Walter D. Koenig 1

Melanerpes formicivorus

Blomore — Hastings Reservation

11 January 1230. ♂BP/ #513 in the granary in passing.

9 March 1150. 2 ♂♂ in the granary; 1 is ♂M/Red #584. Second bird is ♂BP-Or/BP #513. A 3rd bird here also (presumably the ♀).

10 April Passed by here this morning about 830 but didn't see anyone in or out of holes. There are quite a few stored acorns remaining here, however.

22 April 1600. Something up here - 6-8 birds here chasing, etc. ① Or/BlR M/BlR #492 from 1500 here; also an ub ♀; also ② ♂BP/Mauve #584 and ♀M/ #478(?). Better watch to confirm this. Yes: these 2 are here, together; the 1st yr ♂ is chasing. Clearly ♂513 has bit the dust, and this is the Revolution to replace him. I estimate 6-8 birds present; unfortunately I don't have much of an idea of the sex ratio. However, there is a fair amount of drumming, garricking, and chasing. It certainly matches the Revolution I precipitated last year by removing the ♂. At the moment, the 2 remaining residents are still tight in the granary, but I don't expect that to last! There are at least a couple ub ♂♂ here.

Revolution

1615. Well, enough to know generally what's up! I predict a new ♂ here next time we look!

25 April 740. Still some activity here (see Ron's notes for intervening developments since 22 April). Here are ①♀ub; ②2nd ♀ ③♂Or/Blk #492 (from 1500). ④♂LB/LB #493; ⑤♂M/Or.-Blk #622.

800. In control of the central area here are the 3 1500 ♂♂ and 2 or 3 unbanded ♀♀ (as Ron suggested yesterday). But there may still be some others (♀478?) on the side...

Melanerpes formicivorus

Blomore — Hastings Reservation

(25 April) 830. The story appears to be as follows: as reported by Ron, the main area has clearly been taken over by the 3 1500 ♂♂ and 3 others, apparently all unbanded ♀♀. Meanwhile, over in the site area (the tree with the roost hole where I ambushed one but where they've never rested) are the 3 losers: ♀478 and 2 unbanded ♂♂ (0584 is no longer to be seen). These 3 are mainly just sitting around, occasionally greeting each other and moving around in the tree. But they are making no attempt to assault the granary, nor are the birds there paying any attention to them. It would definitely appear that we will at last have a case of ♀♀ ousting a resident and usurping a territory during what certainly began as a ♂-revolution!

28 April Watched roosting tonight: all 6 birds were here. Lots of pre-roost mounting, birds going in and out of holes, etc. Finally they roosted in 2 holes, 1 I knew about and another I didn't!

* Pam reports having seen 0584 (the former 1st yr ♂ from here) in the 2nd canyon on Blomquist's drinking from a hole in a tree. He is clearly "floating" out here.

30 April A successful ambush this morning netted 0493 and all 3 unbanded ♀♀, now ♀648 - ♀650 (the other 2 ♂♂ were probably in the hole too but I was worried about intruders showing up so I didn't wait for them). This group is hopefully all banded again.

Melanerpes formicivorus

Blanone Hastings Reservation

(30 April) Time to make the necessary changes to this group:

♂513. Last seen 9 March, presumably gone just prior to 22 April when the Revolution started: Disappeared about 20 April.

♂584. Here on 22 April during the early stages of the Revolution, but left shortly. Seen by Pam on 28 April over in the 2nd canyon, not far away. This bird is presently a real-live floater, having been evicted by the new ♂♂ replacing his father: Left group about 23 April.

♀478. The breeding ♀ was here fighting on 22 April, but had clearly been overwhelmed by the trio of new ♀♀ by 24 April. She hung around on the periphery at least through 25 April, but is now gone, presumably another floater. This is the 1st documented instance of a breeding bird being evicted from its territory during a Revolution begun by a vacancy in the other sex, and confirms the potential payoff to ♀♀ participating in ♂-Revolutions!: Left group about 23 April.

Add: ♂492, ♂493, ♂622, ♀648, ♀649, ♀650. All these birds moved in during the Revolution which began due to the demise of ♂513 on 22 April and spread to include a fight for the ♀ spot here, which ♀478 lost. The 3 ♀♀ were all unbanded but were caught in an ambush 30 April: Moved here 23 April. If they all stay it should be an interesting Spring here!

Melanerpes formicivorus

Blomore Hastings Reservation

15 May 1650. A ♀ (looked like she had a dark spot on the R side of her forehead, hence ♀649) was looking out of the hole in the main trunk of the granary. Could be because of the wretched weather, but then again...

16 May 630. Watching the hole from the hide

730. ♀$^{WR/DB}$#649 enters hole. 731. ♂$^{OR/BLK}$#492 comes to hole briefly, flies off. 733. ♀ looks out and eventually leaves.

815. Going to check the nest.

1010. Well, rather to my surprise, the nest is going here: they have 2 eggs! This discovery forced me to spend the subsequent 1½ hrs or so sawing open the hole - an unpleasant task to say the least. This at any rate allowed me to mark the eggs so we'll know if they get tossed or not.

Also, it would appear likely that ♀649 laid at least one of the eggs this morning (possibly before I arrived). I would have to guess that there's still a good chance for some egg tossing here, especially if all 3 ♀♀ are going to lay. Of course, some tossing may already have occurred.

1500. Checked the hole with the peeper: still 2 eggs.

17 May 542. Watching. The 2 eggs are still in the hole.

605. ♂$^{LB/LB}$#493 over in small Blue Oak.

830. The birds are around (I also saw ♂492 and ♀649) but noone at all went to or into the hole. I'll check it again to make sure, but things appear to be in something of a holding pattern for the moment.

Melanerpes formicivorus

Blemore Nest Record

16 May 830 — 2 fresh eggs, marked #① + ②

1700 — still 2 eggs.

18 May — Eggs gone

Hastings Reservation

Melanerpes formicivorus

Blomore — Hastings Reservation

19 May 610. Flushed ~4 birds from the area when I arrived. Now watching from the Blue Oak.

634. Some dominance: ♂492 was eating an acorn on a limb. ♂493, after several minutes, flew over to the limb and waited patiently below ♂492 until ~~he~~ he flew off, at * which point ♂493 hitched up to eat some of the leftovers. At that point ♂622 was there also, and sidled over to the acorn and the other ♂, but was pecked several times by ♂493.

645. I've now seen all 5 birds (♀650 would indeed appear to have returned from where she came).

730. Quitting. Everyone here but no interest in holes.

745. Checked hole (with peeper only): still empty as best I can tell.

21 May 615. Watching. Two birds flushed from the granary when I came.

705. One of the birds just took off from the granary and flew across the pond into Blomtwo territory, which these birds are apparently making some use of.

745. Leaving. No obvious interest in any holes yet.

23 May 615. Watching. Several birds over at Blomtwo - going to check.

630. A veritable mini-Revolution at Blomtwo. Looks like most or all of the Blomore birds are here - including ♀650! Seen are ♂492, ♀649, ♀650, ♂493.

♀650 is at least hobnobbing with everyone else. What seems to be happening is simply that the Blomore birds are defending the area here against some intruders.

♀648 here also, as is ♂622 (that's all 6). None of the "intruders" identified as yet.

Melanerpes formicivorus

Blomone Hastings Reservation

(23 May) 645. ♀650 is not being obviously excluded by any of the other birds. Birds are mostly in and near the Valley Oak that the Blomtwo group nested in last year (not the one back in the forest).

650. 2 birds have apparently just flown back (independently) to Blomone. Returning.

655. Now that I'm back there's again a lot of calling over at Blomtwo!

715. Birds are commuting back and forth, returning to Blomone occasionally no doubt in part to fill up with acorns to eat.

720. One of the ♂♂ and ♀649 drinking from a treehole over near the large Blue Oak with the roost holes (by the path).

800. Leaving. A fair amount of activity but no solid interest in any holes.

25 May 620. Watching. At least 1 bird in each of Blomone and two areas.

626. Everyone apparently back here now. ♀648, 649 here; looking for ♀650 ~~don't~~ but haven't found her yet.

700. ♂492 took a brief look into the hole.

736. ♂493 peeked into the hole.

815. Leaving. ♂♂, at least, showing some interest in the holes!

27 May 625. Watching.

740. Leaving. No interest in holes today. Seen for sure were ♀649, ♂493, ♂622, ♂492. Birds still flying over to Blomtwo.

1945. At roosting here 2 birds roosted in the "nest" hole (the vertical one in the trunk) and at least 2 others apparently roosted in a hole in the adjoining Valley Oak. (Ron checked this hole yesterday and found a fair amount of garbage inside).

Melanerpes formicivorus

Blomone — Hastings Reservation

28 May 615. Watching.

625. ♀649 sitting across the pond by Blomtwo. Nobody here as yet.

635. ♀649 now apparently alone in the granary here.

705. ♀648 here also - in ~~Blue~~ valley Oak over by the road.

712. Both ♀♀ together now.

713. A set of 3(?) intruders flew in together coming from the direction of Haystack. Chasing began immediately. At least 1 of the intruders is an unbanded ♂.

720. Both ♂492 and ♂493 here for sure. ♂622 most likely here.

730. A fair amount of activity, but no obvious interest in any holes. Going to check the one Ron saw birds in (I can't really see that hole from here.)

30 May 630. Here again. Immediately upon arrival ♂493 was here peering into the hole as if someone were inside (?).

730. ♂493 continued to show some interest in the hole for some time, but I never saw any sign that anyone was inside. Going to check it (if possible).

800. Climbed up and looked in with the peeper as carefully as I could, but saw nothing.

4 June 620. Watching. Flushed 1 bird when I arrived. Several birds calling from Blomtwo.

630. Over in Blomtwo's '80 nest tree are ♀649 and ♂493.

640. Now ♂493 back hawking at Blomone. ♂492 here also.

710. ♂493 actually went briefly into a hole in the ~~Blue Oak~~ roost tree by the road!

715. Leaving. Going to make a quick check of that hole. No sign of ♀648 today.

Melanerpes formicivorus

Blomone: Hastings Reservation

(4 June) 730. Checked the hole 3493 entered with the peeper but couldn't see anything.

28 June 900. Noone in any holes.

10 July 1900. Checked the holes here but didn't see anyone.

2 August Purge: ♀650. Last seen over at Blomtwo with everyone on 23 May (me); left group at that time (or even a little before).

Melanerpes formicivorus

Gazebo — Hastings Reservation

10 January 1245. Watching from hide.

1345. Zilch. Time to have a look around.

1347. ① ♂ WH/M LP/LB #517 in dead tree over toward forest. Flew to small Blue Oaks to sapsuck; a ♀ there also.

1408. Picked up 2 more wandering around: ② ♂ DB-WH/DB #516 and ③ ♂ LB-BLK/LB #571.

1430. Caving up. Blind set at one of the sap areas for next time.

11 January 1050. Watching from blind.

1100. ① ♂517 here now sapsucking.

1106. ② ♂ DB-WH/DB M #516 now here sapsucking along with ♂517

1122. ③ ♀ LG-DG/Yel #509 up in snag with ♂517.

1205. After all this time, ♂517 and ♀509 are still here while ♂516 left quite a while ago and noone else has shown up. Time to take a look around before leaving.

10 February 1430. Wandering around here, I saw ① ♂ M/Yel-DK #516, ② ♂ LB-BLK/LB #571, and 2 ♀♀, both of whom were banded and were (I think) consistent with being ♀509 and ♀570. Thus, 2 of their babies have made it. The question remains, however, as to what they're going to do about a breeding ♀ this spring?

1440. ③ ♂ LP/M #517 sapsucking over in sap area.

16 April 1230. ♂ DB-LP/DB #516 seen here in passing

22 April 1600. Noone seen here in passing.

28 April Ron reports an unbanded ♀ here at last!

Also, Pam reports having seen ♂571 (from here) at the Blomquist Pond down by the Pump today at 1700.

Melanerpes formicivorus

Gazebo — Hastings Reservation

30 April — Ron's report of a new unbanded ♀ here at last: Add: ♀ unbanded. Moved here (age unknown) about 25 April (here on 28 April, no sign of anything new going on as late as 22 April). Hopefully I'll nab her before long. [see following entry.]

8 May — 600. An ambush here at the '80 nest hole netted 2 birds: ♀570 and the unbanded ♀(!) [roosting together no less!]. (A 3rd bird, a banded ♂, came to the hole but roosted elsewhere, and a 4th, with a high squeeky voice, flew off toward HNHR at dusk last night.) The 0 new ♀ was banded as ♀653, and will replace the unbanded bird added above.

23 May — Ron has found a nest here and has been watching it, reporting that only a pair appears to be present (the new ♀ and ♂516). See his notes for more details.

7 June — ♂571 over on the Knoll and up the 2nd canyon; see Y notes and Ron's notes.

8 June — 1020. Opened the nest, confirming that it has failed (it contained 2 rather decomposed, featherless nestlings).

Checking the stores, this group does have some left, but not a lot. I counted about 60 decent-looking acorns remaining in the various limbs.

18 June — 845. Nobody seen here in/out of holes in passing.

28 June — 830. " " " " " " " "

10 July — 1900. Flushed 2 birds from the nest tree, but noone in any holes.

2 August — Purge: ♂517. Last seen 3 March, gone by 4 April

Melanerpes formicivorus

Gazebo Nest Record — Hastings Reservation

Melanerpes formicivorus

Gazebo — Hastings Reservation

(2 August) → Disappeared abt 18 March ± 2 wks.

♀509. Last seen at Gazebo and at Revolution at Lower Haystack ~~on~~ at beginning of April (Ron); also seen at Lower Haystack on 13 May. Ron thinks he saw her at Gazebo on 20 April; the new ♀ was here by ~28 April → left group about 24 April.

♂569. Last seen 21 Oct 1980, gone by 11 Jan. (ME) → Disappeared about 30 Nov ± 1 Month.

♀570. Still here on 8 May with the new ♀ but ~~left~~ must have left directly thereafter → left group about 10 May.

♂571. Last seen at Gazebo on 20 April. By 28 April he was floating and seen at Blom Pond (28 April), Low Haystack (1 & May), the Y and the 2nd Canyon on Blomquist (7 June) → left group ~24 April.

♂572. Last seen 21 Oct 80, gone by 11 Jan. (ME) → Dis. abt 30 Nov. ± 1 month.

Walter D. Koenig

Melanerpes formicivorus

Westgate — Hastings Reservation

16 January — 1038. Counted stores: 931. Also took a sample of acorns from the granary, but with the extension ladder I could only get 11 (I need to bring the stepladder out).

20 January — 1500. Finished taking a sample of 50 acorns.

18 February — About a week ago Ron noted that the low limb off this tree - one which held ~250 acorns - had fallen. He propped it up nearby for the time, but yesterday (17 Feb) we hoisted it back up into the granary and balanced it ~~30'~~ 40' or so up in between 2 living limbs. Most of the acorns were still intact (some had certainly been lost and fungi - apparently growing very rapidly while it was on the ground - had invaded several holes) but in general we salvaged the greater part of it. Will our toying with nature ever stop?! Somehow, despite the fact that this group is of marginal value, I feel rather obligated to old ♂58 who is, after all, the lowest-numbered bird still extant in the study. Long may he Waka!

8 April — 945. Counted stores: 542. Doing fairly well, considering ~~8 A p r i l~~ the (near) loss of the low limb. Also saw ♂58 up in the granary, chase out an intruder.

14 April — 1700. Went over and checked last year's nest hole, which turns out to have broken off right at the cavity.

7 May — 1400. Bird flushed out of a hole low in the granary, followed by a flurry of wood chips.

9 May — 1500. Checked and opened the hole: they have 4 eggs!

13 May — 1400. Checked the hole again: still 4 eggs. The ♂ was in the hole incubating (at least he can get in it!)

The nest here is 6.3m high.

Melanerpes formicivorus

Westgate Nest Record

9 May 1500

13 May 1400

23 May 1630

Hastings Reservation

4 eggs (all normal)

4 eggs.

3 babies, no unhatched eggs

	#693 ① Or-DP	#694 ② Blk-Yel	③
23 May 1630	30.3	28.2	17.0
8 June 1330	83.3 (61)	70.8 (52)	(20.2) [22]
Devel sequence (crown)	1	2	(Dead in nest)

Melanerpes formicivorus

Westgate Hastings Reservation

23 May 1630. They've got 3 babies! All in good shape and about 7-8 dys old! The nest here is 6.3m high.

26 May 1700. Saw ♂LG/LG #58 in the vicinity of the nest here.

8 June 1330. Banded and bled the 2 babies here as #693 & 694. The 3rd was dead but still in the nest.

14 June 1630. This group is functionally out of acorns: ☹. The babies are still screaming away in the nest, however, and with any luck at all they'll make it.

Walter D. Koenig

Melanerpes formicivorus

Gate — Hastings Reservation

16 January 1100. Counted stores here, finding a solid 860 plus they've filled the '80 nest hole with acorns (est. ~125) → 985* total. ~~Doing~~ Doing well here. I didn't take any stores, however.

I did see 4 birds together at the top of the tree when I arrived.

*See 20 Jan, below.

20 January 1500. Climbed up and got a sample of 50 acorns from the '80 nest hole, which is indeed stuffed with acorns - more than I'd estimated above. I'd now give them a good 200 in that hole (as well as ~50 in the hole above it) for a total of 1110 stores.

8 April 930 Counted stores: 730*. Doing very well for themselves!

*See 11 April, below

10 April Ron reports these birds still harvesting acorns from a Live Oak over by the gate. No wonder their stores are doing so well!

11 April 1700. When we* arrived a ♂ was looking out of the hole; he eventually flew out at which point we watched all 3 adults (presumably) flying around together - over to the gate (where Ron saw them harvesting acorns) and back. Finally I went up to the hole and tried to look in with the peeper, but was unable to get a sure fix on the bottom. I did check last year's hole, however, and it is still filled with acorns, so give this group an additional ~~200~~ 200 stores for a total of 930.

*- Me, Steve & Natalie Enlen-

12 April 1700. After Ron had seen birds looking out of the hole again today I went up and opened the hole - a neat job done from the back. There was nothing in it.

14 April 1645. Checked the nest, but nothing yet.

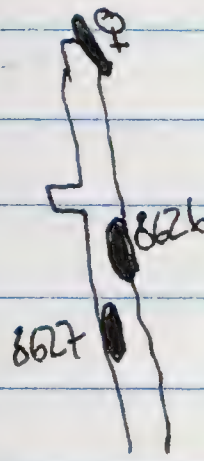
Melanerpes formicivorus

Gate — Hastings Reservation

28 April 600. Nothing in hole (Ron put a fake egg in here yesterday). I put in another fake egg, set up the movie camera (using time lapse, 1 frame/s), and got ready to try for pictures of egg tossing.

620. Immediately 3 birds came to the granary, hung around briefly, and then flew off together (not in a tight pack but definitely interested in one another) across the road.

730. Changed film. Just before I went up the 3 birds had been sitting together atop the tree (see ←). First the ♀ flew off, followed about a second later by ♂626, and then 2s after that by the 2nd ♂ (♂627, presumably).



900. Giving up. Removed the egg.

3 May 630. 3 birds in the hole, but still no egg; put in a fake one to try one last time to get a picture.

720. At least 2 intruders around, being soundly chased.

4 May Birds in the hole at least twice today. Surely they've finally laid!

9 May Watched roosting: the ♂ came barrelling in and did not really give me much time, but I think it was ♂LP/DK #627. However, I wouldn't call that for sure until I watch again.

(The birds do have a nest here - see Ron's notes.)

25 May 1900. Checked the nest - 3 babies.

* 1940. A positive ID at roosting tonight: ♂627 spent the night in the nest.

26 May 1940. ♂627 for sure roosted in the nest again tonight.

6 June 900. Banded and bled the 3 babies (a little early, but the PRBO class needed to see something) as #684-686.

Melanerpes formicivorus

Gate Nest Record — Hastings Reservation

4 eggs laid (see Ron's notes for more details)

Eggs laid on 5, 6, 7, & 8 May.

(1 egg apparently failed due to food color injection.)

25 May 1900 — 3 babies

	#684 ①Y-DB	#685 ②DB-Wh	#686 ③
25 May 1900	34.4	37.5	16.6
6 June 900	77.2 (59)	83.0 (62)	65.2 (37)
Devel. sequence (crown)			3

Melanerpes formicivorus

Gate Hastings Reservation

21 June 1830. Counted stores: 206 + est. 100 in '80 nesthole = 306.

17 August 800. No stores left here (unless a few are still in the nesthole).

1981 Walter D. Koenig

Melanerpes formicivorus

Pipeline — Hastings Reservation

19 April 1200. While driving by I flushed a bird sitting up here - just about the 1st one I've seen here all year!

Melanerpes formicivorus

Warp 5 Hastings Reservation

4 January Caught ♂0634 and 635 in holes up at Arf, too this morning. I'm not sure how to interpret it yet, but for further details see Arf, too notes.

13 April 940. Up along the road to the Arnold at ARF, Too was ♀ M Or-wh/Mk LB #629; plus at least 1 other bird.

4 May 1700. Bird in the hole in the Black Oak here: with any luck, this is the nest.

23 May 1430. Checked the nest [redacted] here (Ron discovered 3 eggs back early in May [7 May?]) and found the same 3 eggs, which had developed but had apparently been abandoned somewhere along the line. Ron also reports there being a few stored acorns here in the granary, so a lack of stores is apparently not their problem.

12 June Ron found this group's new nest here this morning; we came back at 1015 and opened it up (it's in a hard-to-see hole by the granary)

17 June Banded and bled the 3 babies up here as #702-704.

2 August Changes to be made, primarily on the basis of Ron's observations:

Add: ♂528 from Arf, too and ♂636 from Arf, too; both presumably here for the 1st nest ~ early May and thus here in April; we don't know whether they came from Arf, too or whether they were just fooling around up there when I ambushed.

Purge: ♂628, ♂630, ♀631, ♀633, ♂634, ♂635; ~~none seen since banding except~~ for last ambush These birds

Melanerpes formicivorus

Warp 5 Nest Record

5 May	3 eggs
6 May	Still 3 eggs, bird inc
23 May	Still 3 eggs - nest abandoned
12 June 1030	New nest found: 3 babies

	① R-W	② BP-Wh(n)	③
12 June 1030	59.8 (47)	64.9 (46)	54.0 (40)
17 June 1330	67.0 (72)	74.0 (71)	62.8 (63)
Devel. sequence (crown)	1 ← A draw →	1	3

Melanerpes formicivorus

Warp 5

(2 August) are a real problem, at least in regards to the connection between this group and Arf, too. All of them are no longer present here; the captures of them go as follows:

24 July 1980: ♂628, ♀629, ♂630, ♀631 (at Warp 5)
28 Dec. 1980: ♀629, ♀633, ♂634, ♂635 (" " ")
4 Jan. 1981: ♂528 (an oldy); ♂634, ♂635, ♂636 (at Arf, too).

As of now, ♂528, ♀629, ♂636 are now at Warp 5; ♂635 is at ~~Warp~~ Arf, too. All others are gone.

In lieu of really speculating as to what happened here:

♂628: Not seen here after 24 July 80.
♀629: Still here, a breeder.
♂630: Not seen here after 24 July 80.
♀631: " " " " "
♀633: Not seen here after 28 Dec. 1980. Seen by Ron at Lower Haystack 8 April 1981; Not seen here after 28 Dec. 1980, probably emigrated.
♂634. Unclear where he came from or what he was doing. Not seen here after 4 Jan 81 (actually at Arf, too).
♂635. Now at Arf, too. Not seen here after 28 Dec. 80.

Melanerpes formicivorus

Road 1 Hastings Reservation

21 January 1615. Counted stores: Main tree: 2638
2° Sycamore: 544
Other: 20
} 3202.

Doing well here. In particular, the 2° sycamore is becoming a good granary rather quickly, replacing a lot of the old tree which fell.

I also took a sample of 50 acorns from the granary.

15 April 1200. Opened the new hole in the Black Oak up by the granary, flushing a ♀ and then a ♂ in the process (from inside the hole). The hole looks good and is definitely useable.

16 April 605. In hide watching the hole.

635. ♀383 enters hole.

644. Looks out, then goes back down.

649. Looks out again and wakes to a bird over in granary. Goes back down. 651. Looks out, back down.

653. Looks out. 657. Leaves. Flew to granary (2 others there).

702. Coming up.

715. She did it! One runt egg in the hole, marked #1! Now back in the hide.

747. ♀383 at hole entrance for ~1 min; left w/o entering. Did dip in several times.

806. ♀269 sitting and preening alone in the granary. Others have flown across the road. This is certainly the opportunity for her!

811. ♀383 enters hole. Leaves at 813 carrying some wood chips.

821.!! ♀383 (for sure!) enters hole; flies out at 823

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Road 1 Hastings Reservation

(16 April) carrying the egg (her egg!). She flies to the granary with it, where's she's greeted by 1-2 others. After 15s or so (still carrying the egg intact in her bill) she flies off across the road with it, and reappears ~1m later without it!

829. ♀383 enters hole, leaves right away with wood chips.

850. I've now seen all 4 of the breeders (at one time or another) over in the granary.

916. ♀383 back in the hole. Leaves at 923.

925. Checked the hole again: 0 eggs.

Counted stores: Main tree: 2013; Sycamore: 100 } 2113 (Used the scope to count).

17 April 605. Back again, watching. I've just checked the hole (I arrived at 545) and there is nothing in it.

626. ♀383 enters hole. Noone else in vicinity.

636. Waka'd from inside of hole when 2 birds met in granary.

638. Looks out and leaves.

640. ♀383 at hole; leaves without entering.

641. ♀383 enters; leaves at 648. Going to check hole.

700. She did it again: this one is normal and measures 25.2×20.8mm

745. ≥5 birds in granary together. ♂ M/Wh-LB # 578 seen.

812. Intruder in the nest tree: ? DG/DG-BP(u) # 614 (1st ♀ 4yr from Finch [somehow I must have switched her bands]).

823. ♀383 enters hole; looks out 826; leaves 828.

837. Someone gave an alarm call and at least 3 birds piled into a hole in the main granary. ♀269 seen (in granary).

903. ♀383 entered hole; looked out at 906 and 915, (go to P.4)

Hole A is in the Black Oak just up from the granary
Hole B is in the large Valley Oak next to the creek
near ~~the~~ 180 nest tree.

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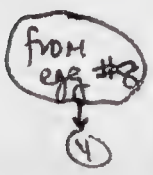
Road 1 Nest Record	Hole	Hastings Reservation
16 April 635-700	A	Runt egg laid by ♀383; tossed by her at 823.
17 April 625-700	A	Egg laid by ♀383: ①25.2×20.8
18 April 631-645	A	2nd egg laid by ♀383
646	A	♀269 tosses both eggs
700	A	Hole empty
	B	♀269 laid egg in Valley Oak hole
	B	♀383 tosses ♀269's egg
19 April 650-730	A	♀383 laid egg: 25.1×20.7mm
	A	♀269 tosses ♀383's egg
	B	♀269 laid egg: 26.3×19.8mm
20 April	A	♀383 laid egg
745	A	♀269 tosses ♀383's egg
~800	A	♀269 lays an egg ①25.2×19.4
21 April ~~[illegible]~~	A	2nd egg laid (either ♀ may have done it) ②25.0×21.0
22 April 840	A	2 new eggs: ③26.6×20.4 (269?) ④25.0×20.3 (383)
945	B	Hole empty
23 April 1120	A	2 new eggs (6 total now) ⑤25.6×20.8 [♀383] ⑥24.9×20.2 [♀269]
24 April 1140	A	2 more new eggs (all others ok) ⑦25.7×20.0 ⑧25.5×19.8
25 April 1045		Still 8 eggs.
5 May 1530		3 babies, 5 eggs (1,3,5,7,8)

	#670	#672	#671	#673 	
	LB-Yel	R-W	DP-Or		
5 May 1530	Hatched	Hatched	Hatched		
7 May 1100	14.3	11.2	10.1	6.4	4 babies, 4 unhatched (#1,3,5,7) Eggs still there
9 May 1530	26.5	21.3	20.6	14.5	
29 May 1715	82.6(98)	88.2(93)	85.9(95)	78.9(88)	
Devel. sequence (crown)	2	3	1	4	

Melanerpes formicivorus

Road 1 Hastings Reservation

(17 April) finally left at 920. At least she's leaving her egg in there this time.

1020. ♀383 enters hole. 1023. ♂294 peeks into hole but doesn't enter. 1034-1035, ♀ looks out; again at 1041-1042. Leaves with a wood chip at 1043.

1054. Ron finally coming. Going to check hole.

1100. Still 1 egg. Ron taking over.

18 April 600. Watching. Rons over watching another hole (the Black Oak hole) where there was some interest yesterday afternoon.

631. ♀383 enters hole. 633. ♂294 at hole briefly; leaves w/o entering.

642. ♂486 comes, looks in the hole for ~a minute.

644. ♀269 comes to hole; ~~with~~ wakes to the ♀ inside. After ~a minute she goes in. Then ♀383 (for sure) looks out, then leaves. Within 30s ♀269 comes

* out carrying the Marked egg (laid yesterday by ♀383), flies to the granary with it, hops around, pecks at it and puts it down somewhere. She then returns directly to the hole, hesitates ~5s before reentering and coming out with a second egg (presumably just laid by ♀383) and flies to the granary with it! At that point ♂486 came back and looked into the hole; Ron whelped from the side of $ PO Hill, and I got out of the hide briefly, scaring birds off. Now at 655 I'm back in watching again.

We got it!!

710. Just went up and checked the hole: it's empty. Meanwhile Ron yells over that ♀269 may be laying in the

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Road 1 Hastings Reservation

(18 April) other hole!

744. ♀383 enters hole. 759. looks out briefly. Looks out again 804-80; leaves 810.

822. After a couple minutes' hesitation ♀269 enters hole (with abdomen palpitating - does this mean an egg?). ♂294 was nearby watching her. She did not stay in long, and flew out at 824.

827. ♀383 enters hole. Looks out at 830, 835. Leaves at 843. If ♀269 did lay an egg, this was ♀383's chance to chuck it and she didn't.

900. Checked hole: it's empty; so ♀269 has not laid an egg in it. 910. Will remain watching for awhile longer.

1000. Quitting.

As it turns out - ♀269 laid in the other hole (where Ron was watching) and her egg was tossed out by ♀383! See Ron's notes for details on this as well as the eating of the eggs! Quite a morning out here!!

19 April 605. Watching once again (at the hole in the Black Oak above the granary) (it's also raining again!)

648. ♀383 entered, left right away with some wood chips (was not in long enough to lay an egg).

650. ♀383 enters again. Looks out, 709; 717-720. 733. Leaves.

750. Checked hole: ♀383 did lay an egg, 25.1 × 20.7 mm, which I marked with a ① and several x's.

818. A Plain Titmouse entered the hole for 30s or so.

~830. Ron yells over that ♀269 has probably laid in the other hole again

909. ♀383 enters hole. Looks out at 916; 921-925; at 928

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Road 1 Hastings Reservation 1.

(19 April) 3486 comes and looks ~~in~~ into the hole briefly; leaves w/o entering. ♀ looks out 928-931; then leaves at 931.
940. ♀383 enters hole again. Looks out at 941, 944. Now I can here some pecking from inside the hole. 948. Now quiet; bird still in hole. 950. Looks out and leaves as someone kamit-cuts in the granary.
1005. Going to find Ron and decide what to do now. ~~Right~~
Ron went and climbed up the other nest tree, where ♀269 had indeed laid an egg. Fortunately, Janet came out ~~on~~ just as we went over there, so I put her up watching the hole in the Black Oak, where ♀269 tossed the egg laid this morning by ♀383! This news inspired us to keep a watch on the other hole on the of chance that ♀383 would toss the egg there. We did allow ~~some~~ a short period to go by at this point when the hole wasn't watched, but otherwise we had someone (Ron, Mary, Byron) watching the hole the rest of the day (nothing at all had happened there by 1700). ~~So~~ But, during Ron's later watch he did see the ♀♀ hanging around the other hole, so with luck they'll finally get together and lay there tomorrow. Once again, however, the hole in the Black Oak is empty; the one in the Valley Oak most likely has 1 egg.

20-21 April I wasn't here these 2 days, but on the 20th ♀383 laid an egg in the Black Oak which was immediately tossed by ♀269, following which ♀269 finally laid in the same hole.

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Road 1 Hastings Reservation

(20-21 April) On the 21st, both ♀♀ went into the hole several times, but only 1 egg was laid, whose maternity is therefore questionable. For further details on all this, see Lori's notes.

22 April 643. Watching the Black Oak hole.
644.40. ♀383 enters hole.
44.50. L.O (looks out)
45.00. Back down (Back down)
53.25. L.O
57.08. B.D
700.20. ♂486 at hole for 5s, flies out.
00.30. ♀383 L.O
3.04. B.D
3.10. L.O.
4.05. Leaves
9.18. ♀269
9.25. ♀269 enters
17.25. L.O
17.42. Leaves, goes to granary.
22.30. Intruder in granary chased by ♀♀.
28.55. ♀269 enters hole
31.00. L.O.
32.00. Leaves.
40.00. ≥5 birds in granary ganging up to chase out a crow
50.00. Everyone flycatching
53.00. ♂486 at hole; also ♂579 above limb; apparently a 3rd bird ~~♂~~ (♀?) inside. All left w/in 30s.
809.40. ♀383 enters hole. ~~♂~~ out by 25.00 (don't know exactly when).
10.00. ♂579 at entrance for 10s; leaves w/o entering
830. Going up to check the hole.

All 8 birds identified in the granary during this watch.

845. 4 eggs now in hole: both laid this morning.
945. Checked the hole in the Valley Oak where ♀269 had been laying, and it's empty.

23 April 1120. 6 eggs in the hole! #5 and 6 measured and returned.

24 April 1140. 8 eggs in the hole!

25 April 1045. Still 8 eggs. Looks like that's going to be it.

7 May 1130. Checked the nest: 4 babies and 4 unhatched (and probably infertile) eggs. The babies were weighed and marked.

9 May 1530. Checked and measured the babies.

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Road 1 Hastings Reservation

18 May 1933. ♂486 (well, a ♂ with a M band on his left leg, anyway) roosted in the nest. Not an easy group to get- in fact it would definitely have been hopeless without a flashlight.

28 May We did an all-day watch here today - my shift was 1400-1700.

29 May 1730. Banded and bled the 4 babies, who are now #670-673.

1000. Counted stores: Main tree: 1105
Others: 14
} 1119

2 August Purge: j670. Not seen after banding on 29 May.

17 August 900. Still a fair number of stores here - certainly several hundred at least.

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Finch — Hastings Reservation

23 January 1130. Counted stores: Main Tree: 1076
Sycamore: 856 } 2134
Other: 202

While contemplating climbing up the tree on this wet day to get some acorns I ran across a small limb which had fallen, apparently very recently. So rather than climbing up I merely extracted acorns from the limb, coming up with a total of 60.

29 March Purge: ♀500. Last seen 10 November 1980 (Ron); gone by 7 Jan (Ron): Disappeared about 9 Dec ± 1 month.

22 April 915. Counted stores: Main tree: 297
410
Sycamore: ~~380~~ } ~~677~~. 707.

No unusual activity here or sign of anyone in a hole.

14 June 945. Counted stores: Main tree: 116
Sycamore 286 } 402.

Also, a ♂ in the nest hole prompts me to be sure to get back here and check the hole again soon.

1615. Checked the hole: zilch. Just as well...

17 August 920. No stores left here, as far as I can tell.

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Road 3 Hastings Reservation

21 January 1530. Counted stores: Sycamore: 965
Valley Oak: 1237 } 2202.
Also took a sample of 50 stores from the Valley Oak and replaced them with some of my own.

29 March Purge: ♂538. Last seen 23 July 1980 (Ron); gone by 22 Aug
→ Disappeared about 7 August ± 2 wks.

12 April 1730. Came out with Ron. Ron checked the hole, but nothing yet.

25 April 1030. Counted stores: Sycamore 1080
Valley Oak: 725 } 1805. Still doing well!

4 May 1350. Weighed the 3 babies and removed the unhatched egg. All 3 had one or more scars or lesions of some sort on their back; I also had a large lump in its back similar to a blowfly. But all seemed in good shape nonetheless.

23 May 1330. Banded and bled the 3 babies, who are as fat as any I've ever seen! They are now #654-656. These birds have plenty of stores left, also.

10 June A 2nd nest is on here; see Ron's notes and the Nest Record for details.

21 June 1815. Counted stors: Sycamore 494
Valley Oak: 266 } 760.

8 July 1030: Banded and bled the 4 babies (!) in the 2nd nest here as #707-710.

2 August Purge: ♀539. Last seen 11 Feb 81, gone by 16 March →
Disappeared about 1 March ± 2 weeks.

17 August 930. These birds still have some (not a lot) of stores remaining.

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Road 3 Nest Record — Hastings Reservation

Final clutch size: 4 (for further details see Ron's notes)

4 May 1350 — 3 babies, 1 unhatched egg (removed)

	#654 ①Blk-Yel	#655 ②BP-Wh(n)	③#656
4 May 1350	20.0 2 lesions on back	23.8 1 very small lesion	16.0 Botfly larvae on back?
23 May 1330	101.0 (91)	105.0 (98)	98.2 (86)
Devel. sequence (crown)	3	1	2

2nd nest: 4 eggs laid 1-4 June.
All 4 hatched
See Ron's notes for growth rates and details
8 July Banded as #707-710

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School Hill — Hastings Reservation

14 January 1530. Counted stores: Tree 2: 1626 (inc. climbing up to hard limb and counting an additional 176 there).
Tree 1: 240
1866 TOTAL

Also I removed a sample of 50 stored acorns, replacing them with some of my own.

22 January 830. Ron ambushed successfully up here at the (successful) 1980 nest hole, nabbing ♂86 (who we wanted for blood) and ♀604.

8 March 1530. No stores or birds at School Hill "B".

15 April 1530. Counted stores: Tree 2: 857 } 957. Not doing
Tree 1: 100 } too badly.

1600. Opened the hole in the broken-off limb in the VO between the Oft-used nest tree and last year's tree (the Blue Oak) where Mary saw someone this morning. Nothing inside yet!

18 April 1745. Noone in any holes here.

25 April 1650. Put a fake (plaster) egg in the hole with the clutch of 5 (I smashed it a little going up so it's not even as nice as it was to begin with).

30 April Purge: ♀523, ♀524. Moved to watched group (lower Haystack) on 6 April. ♀604 definitely tried to go with them but so far apparently failing (though it's not clear if she'll return back here or not!)

29 May 915. Watching the nest.

950. Watching again. Noone's come yet, but there are babies in the nest.

1200. It took everyone a while to decide it was clear, but once they did the feeding rate here was downright fast. Seen were ♂86, ♂402, ♀260, ♀604, and, feeding more than anyone, ♀523! Compilation is separate.

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School Hill Nest Record — Hastings Reservation

5 eggs laid (see Ron's notes for more details)
Hatched ~5 May ; 3 babies and 2 infertile eggs.

13 May 1700 — 3 babies (eggs had been removed)

	① 667 Y-Blk	② 668	③ 669
13 May 1700	39.5	40.0	38.2
29 May ~~1530~~ 1545	85.1 (90)	89.2 (86) (Don't know 2 from 3)	92.2 (85)
Devel. sequence (crown)	2	1	3

(all pretty close, esp. 1 & 2)

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School Hill — Hastings Reservation

(29 May) 1600. Banded and bled the 3 babies who are now #667-669.

9 June 945. Babies here have fledged. j668 was in Tree 1 and I flushed at least 1 other.

1000. Counted stores: Tree 1: 15; Tree 2: 577 } 592 (I didn't climb up to the hard limb)

Not too shabby.

20 June 0402 and j668 down at Y this morning; see Y notes.

28 June 9760 and apparently several others down at Y.

2 August Purge: 9602: Last seen here on 24 April; not here for the nest which was going by that time; presumably left at that time or very shortly thereafter ⇒ Dis. abt 25 Apr.

j667. Not seen after banding on 29 May.

15 August 1045. Climbed around but couldn't find any stores left up here.

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School Hill West — Hastings Reservation

8 March 1540. Watching. Upon arrival I flushed ♀ -o:/M #531.

1615. There are a fair number of acorns still stored here; almost all were Black Oaks.

1620. Flushed 2 birds down the side of the hill toward Pipeline. One was a ♂, the other was ♀531. So far now it's clear that there's still a pair here, at least, but whether or not the ♂ baby is still here is up for grabs.

30 May 1400. Came up with Ron and Arie to band the 1 and only baby here as #674:

wt: 68.1

wing chord: 48mm

This group does have stores remaining.

2 August Purge: ♂592. Last seen 1 Dec 80, gone by 8 March, Dis. about 19 Jan. 1981 ± 1 month.

j593. Last seen 25 June, gone by 1 Dec → Dis. about @ 12 Sept. ± 2 months.

j594. Last seen when banded on 29 May; gone by 1 Dec → Dis. about 1 Sept ± 3 months.

15 August 1100. No stores left here. Also, the nest hole limb has fallen, along with just about the remainder of that Black Oak. No birds remains at the hole, however.

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Arf, too — Hastings Reservation

4 January After a little bit of watching at dusk I ambushed the birds up here at 2 holes. The results were as follows:

Hole 1, in the tall Valley Oak perch tree near the granaries: 1 bird, ♂634, banded last week as a 1st-yr bird at WARP 5!

Hole 2, in the large Blue Oak (one of 3 trees) next to the path going to the granary: 3 birds:

① ♂528, banded and last seen at the ARF, TOO ambush in late November 1979.

② ♂ unbanded, now ♂636, a first-yr bird by the wear on his primaries and his dark eye

③ ♂635, another 1st-yr bird banded last week at Warp 5.

This all makes the issue of what's actually going on up here very confusing. The most likely explanation is that Warp 5 and Arf, too are in fact one group, probably centered primarily at Arf, too. This seem reasonable, although it means that this is really a rather large group and covers a remarkably large territory. That ♂634 and 635 are in the process of dispersing is also possible, but seems a little less likely. In any case, my guess is that there are 2 groups only in this area: ARF and Arf, too/ Warp 5. Some careful watching would definitely seem to be in order at this point!

13 April Saw 7629 from "Warp 5" up here; see Warp 5 notes.

21 May Incredibly enough, Ron found a nest here - way across the ravine (West Ravine?) as you go up to ARF. We went there this afternoon and Ron opened the nest, finding 3 babies (one of whom was definitely on the way out) about

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Arf too — Hastings Reservation

(21 May) 8 days old (eyes not open yet, no feathers, but fairly big).
6 June Ron banded the 2 babies up here today as #687-688.
2 August This group is being updated. See Warp 5 notes for additional details; the relationship between these 2 groups is obscure at best.

8527, 9529: Not followed since 11 Nov. 1979.

8528, 8636: Not seen here after 4 Jan. 1981; now both at Warp 5.

8635. Now here. Add him as of 4 Jan. 1981

Unbanded ♂, ♀: here presumably since April.

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Black Oak — Hastings Reservation

2 February — 1500. Counted stores, as best as possible:

Central area: 2210
Side area: 712
} 2922.

I also took a sample of 50 acorns for my own devious purposes. I did not see any signs of birds while I was here.

18 February — 1710. ♂ LG:/DB LG·/M #546 flushed from near Bianca knoll area (upper part, near LA2) to the corral as I was going over to LA2.

7 April — See Bianca notes for details of pack behavior and a mounting involving ♂102, ♂426, ♀427, and 1 other bird. (apparently ♂321).

14 April — 1130. Counted stores:

Central area: 2834
Side area: 410
} 3244

These birds are obviously in good shape, and have used hardly any of their stores all winter.

22 April — 1700. Noone in any holes here in passing.

26 April — ~~915~~. 930. " " " " " " " "

2 May — 600. Noone in any holes here in passing, though I did flush at least 2 from near last year's hole.

7 May — 1415. Bird in the '80 nest hole. Could finally be it.

11 May — 1245. Well: after all these years, ♀320 has apparently decided to breed – they have 8 eggs here!

21 May — 1500. Make it up to see what hatched here and found 4 babies, one of whom was cold and dead, and 3 unhatched eggs. All 4 of the babies were on the order of 6 days old.

28 May — 1945. Got roosting here tonight: saw DLR/Solid Bright who

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Black Oak Nest Record

11 May 1245	8 eggs (good count w/ peeper)
21 May 1500	3 live babies ~6-7 d old + 1 dead baby about the same size and 3 unhatched eggs: ①28.8 × 19.4 ②27.8 × 18.9 ③28.4 × 20.3
8 June 1845	3 babies

Hastings Reservation

	①689	②690	③691
8 June 1845	88.1 (93)	91.0 (84)	93.9 (87)
Devel. sequence (crowns)	1 (tie)	1	3

Second Nest

10 June 1645	1 egg (presumably laid by ♀427; see notes)
13 June 1500	Egg gone.

Third nest

25 June 1430 ('79 male)	4 eggs
1 July 730	4 eggs, warm
9 July 1630	3 babies, ~7 dys old.
27 July 1900	1 baby + 1 addled egg

	①713	②See notes
27 July 1900	72.4 (72)	51.8 (56)

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Black Oak Hastings Reservation.

(28 May) is almost certainly ♂426.

31 May 1947. Watched roosting here again tonight. Although I had a better flashlight, I was less sure than last time. But what little I did see appeared to be ♂426 again. I still need a positive id here however.

4 June 1953. At roosting tonight, the hole started out occupied by a ♀, who never left as far as I could tell. Finally another bird came whose bands were extremely hard to pick out despite reasonable (flash) light. Once again, I assume this to be ♂426 (I did see some light on a band apparently near the body; unfortunately, at this point I'm going pretty much on negative evidence.

8 June 1845. Banded and bled the 3 babies as #689-691

1950. At roosting tonight, I finally got it for sure - ♂321 roosted (by himself) in the nest!

* 720. Watching the nest.

10 June 915. Still nothing at the nest, but an interesting observation at the hole in the tree covered with Poison Oak. ①♂426 sitting at the edge for 2 min; ②♂321 inside. ♂321 looks out once, goes back down. ♂426 leaves, ③♂102 now looks out and climbs out, remaining at the edge. He flies off, returns, flies off again. Then ♂321 climbs out, sits at the edge while ④♀427 looks out, climbs out, then leaves! I would say that the possibility of a 2nd nest here looks very good indeed!

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Black Oak — Hastings Reservation

(10 June) 930. Giving up watching the nest.

950. Counted stores: Central area: 2112 } 2272
Side area: 160 }

Stores slightly diminished in side area and in the fallen tree, but otherwise these birds are still well supplied.

1645. After wading through the Poison Oak and sawing through 5" of solid oak I was able to confirm that they have 1 egg in the new hole! It was marked and returned. Note that the babies from the 1st nest won't fledge for at least another 4-5 days.

11 June Arrived at 543 and watched the new hole until 730, during which time only ♂624 came into view, sitting at the hole for several seconds to chase off a Nuthatch. At that point I checked the hole with the peeper, seeing the same (marked) egg inside, and moved the hide over to watch both holes.

856. ♀320 by herself poking around in the side storage area (the hanging limb tree). (Seen well: ♀ Red-Light/M ♀ Red-Light/Blk-Dle). No sign of any ♂♂ following her.

945. ♀320, ♀427, ♂102, plus a 2nd ♂ all together in side storage area. Still no interest in the new hole, though the babies are at least getting fed.

948. ♂497 here also. ♀320 by herself again; others apparently gone off following ♀427. ♂321 here.

952. An interesting exchange: one of the ♀♀ sat with food in her bill, the other a few inches away. The 2nd bird reached over several times and literally grabbed some of the food

Melanerpes formicivorus

Black Oak Hastings Reservation

(11 June) out of the 1st bird's bill, squealing a little as she did so. The other bird did not protest, but sat still and later ate the rest of the food herself!

1000. Leaving. My legs can't handle this hide any longer. Apparently they're in no big rush to get more eggs into the nest!

12 June Watched up here from 550-850, getting a few visits to the active nest but nothing at all at the "new" hole. At that point I checked the latter, finding the same single egg inside. At this point, whether they'll still nest here, elsewhere, or not at all is pretty much up for grabs.

13 June 1500. Hole is now empty. Piffle.

15 June 1600. Babies looking (far) out of the nest hole.

25 June 1430. Ron having mentioned that he'd seen someone looking out of the old ('179) hole, I came up here to check. There was noone in it, but I opened it and found 4 rather stout eggs. They were a little yellowish and thus may be addled, but otherwise this is their bid for a 2nd nest.

1 July 730. Bird in the hole, so I opened it to check: there are still 4 eggs inside, warm.

9 July 1630. Hole opened: 3 babies, ≈7 days old and looking plump! No sign of 4th egg. * No - 4th egg didn't hatch 2

27 July 1900. Weighed and banded the single baby as #713. Also found the 4th egg, which was addled and still in the nest.

1930.! Just as we were leaving somebody started making noise in the grass beneath the nest who turned out to be a 2nd

Melanerpes formicivorus

Black Oak — Hastings Reservation

(27 July) baby! He was a little thin and somewhat funny looking, but otherwise quite healthy - he obviously hadn't taken off too long ago. In any case, it was getting dark, so we took him home for the time being.

2 August Purge: 9544. Last seen 11 Oct 1980, gone by 6 Feb 1981 ⇒ Dis. about 8 Dec. 1980 ± 2 months.
Ron may have seen here on 7 Feb., however.
Ron reports having probably seen her on 6/7 Feb; she was, however, gone by the time we were able to watch the nest (early June) ⇒ Disappeared about 31 March ± 1 month.

16 August 900. These birds still have lots of acorns stored, plus, the Black Oaks are essentially ripe in the area.

Melanerpes formicivorus

SOBO — Hastings Reservation

19 February This morning Ron and I ambushed here, catching 3 of the (apparently) 4 birds present in the group (2♂♂ (1 1st yr) and 1 ♀; the 4th bird is apparently a ♀ also). Since they have lots of stores down here, they've clearly been here since at least last fall; however, we are unfortunately at a virtually complete loss beyond that. I know I've been down in this area looking for (and seeing) the Black Oak birds in the past, but I can at present find no record of when those times were; I certainly cannot guarantee offhand that I've been down here since Winter 79-80. Thus, this group could even have lived and bred here last spring, and perhaps have existed here even longer. But I know they ~~be~~ weren't here at least up to 2 yrs ago, say. For now, records will simply begin from this date—

13 April 1025. Came by here with Byron; there are plenty of stores but noone in any holes. We did flush 1 bird from the area.

26 April 945. Still plenty of stores. Saw ♀ Pa/Dk- #640. Looked around for holes. Found a nice flat with some nice big Valley Oaks but no holes.

27 April 0638 seen at 1600 at Keep Out (seen was LB/Red Red/M or M/Red). He was chased out by some other ♂.

7 May Noone seen down here, nor was I successful in finding any other nice holes.

22 May Ron found and opened the nest here, finding 3 babies

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SOBO — Hastings Reservation

(22 May) about 20 days old!

24 May 1400. Came up to band the 3 babies:

	①#657	②#658	③#659
	82.5 (81)	77.5 (85)	70.6 (76)
Rank (on crown)	2	1	3

This nest is 7.4 m high, and these birds have plenty of stores left in their granary.

10 June 1005. Noone in the nest hole. This group has lots of stores remaining, however, and could try a for 2.

25 June 1445. Checked the nest hole, but nothing there.

16 August 915. There are still some acorns stored in the granary here; these birds aren't going to run out.

j658 came into the granary while we were down here. His crown is nice and red - I bet he's molted already and is a ♂.

Melanerpes formicivorus

Arnold 1 — Hastings Reservation

7 January — 1615. 2 birds in granary; 1 is ①♀ Red/Red #567.
1625. ②♀ WH/LP #505 over in the Valley Oak at the top of the field (between A1-LA2-Bianca).

9 January — 1245. Watching from hide.
1255. ①♂ M/Or-B/B #566, ② WH-DR/M (looks Red) #568, ③♀ R/R #567.
④♂ "100" also here, but his bands are looking less and less like they're supposed to all the time (the "yellow" is very orangish).
1315. ⑤♀ WH/LP #505.
The 1st-yr birds, particularly ♀567 and ♂568, seem to be doing the most chasing of stray dickey-birds here.
1345. Leaving. Everyone here, but I still have some lingering doubts about ♂100.

12 January — ♂566 and ♀567 mixing with some unbanded birds at A3. See general M. formicivorus notes.
1348. ♂586 seen over at the A3 edge of his territory.

4 February — 1120. Counted stores: Main tree: 2190; 2° tree: 40 } 2230.
I also took a sample of 50 stored acorns and replaced them with some of my own.

7 April — ♂566 seen up across the fenceline; see Lambert notes.
1545. ♀ LP #505 up in the top area by herself.

14 April — ♂566 seen up at Lambert; see Lambert notes.
1200. Flushed 2 birds out of the "nest" hole when I came to count stores: 1840. Doing well!
Last night, by the way, we watched 4 for sure any maybe 5 birds roost in the hole.

30 April — ♀567 seen at UA2 - see UA2 notes.

Melanerpes formicivorus

Arnold I — Hastings Reservation

1 May — Bird in the hole late this afternoon.

2 May — 600. Bird in hole again.

915. Opened hole: 5 eggs, not opaque. One was definitely a runt.

6 May — Byron, watching the nest here, reports that 568 is a ♀ rather than a ♂.

17 May — 1030. Checked the nest where they have 2 babies several (~6?) days old and 1 unhatched, infertile egg which was not the runt.

21 May — Byron reports that ♀505 has apparently disappeared entirely! He last saw her on the 11th of May during a partial watch while she has now been noteably absent during watches on the 18th and again today; she would thus appear to be another breeding ♀ casualty during a nesting effort:

♀505. Disappeared about 15 May 1981. (* see 9 June)

3 June — 730. Banded and bled the 2 babies here as #679 and 680.

9 June — Byron now reports that ♀505 has reappeared, and is not gone after all—

25 June — 1500. Counted stores: 1184!

20 July — Set an ambush here at the nest hole, but only 1 bird (a baby) roosted there!

16 August — 1020. Some stores remaining here.

Melanerpes formicivorus

Arnold 1 Nest Record	Hastings Reservation
2 May 915	5 eggs, freshish (but dirty). 4 normal, 1 a runt
17 May 1030	2 babies and 1 unhatched egg (not the runt)

	#679 ① DP-DB	② 680
17 May 1030	34.1	28.8
3 June 730	82.1 (83)	80.5 (77)
Devel. sequence (crown)	Pretty equal	

Melanerpes formicivorus

Lambert — Hastings Reservation

9 January 1400. Flushed 2 birds when I came to set up the hide, inc. ♂ Red/M? #583.

12 January 1115. Watching from hide.

1245. Going to look around. 1 bird here briefly, but it split before I could figure out who it was.

1315. Down at Keep Out I flushed LB-Blk/M #582 from just across on the HNHR side.

2 February 1620. Counted stores: 627 - all in the HFT. This group is not doing well, and I sure couldn't tell you why. I also took a sample of 40 acorns, replacing them with my own.

7 April 130. Up in my favorite corner (between Lambert and A3 on the knoll along the road) were several birds; identified were an ub ♀ and ♂ DG/or-DG #566 (from A1)

1315. Approaching Lambert proper, I flushed a ♀ from the old nest tree - most likely the adult unless one of the babies is a ♀ after all. Now watching.

1400. As usual, noone returned. Checking stores, however, I discovered that they are plumb out: 0. Could be a bad year for this group, such as it is.

13 April 1130. Birds all over - a revolution! ① ♂ Red/Mauve #583. At least 2 ub ♀♀. Drumming, Garricking, the works!

1137. Lots of ub ♀♀. ② ♂ Blk/LB-Blk #582.

1140. A sudden set of Alarm calls (My guess is that ≥3 birds gave alarms!). There are all sorts of ub ♀♀ here; I'd say at least 6-8. No sign of either former breeder as yet. There is an unbanded ♂ here too - Drumming in the old nest tree.

Melanerpes formicivorus

Lambert — Hastings Reservation

(13 April) Most of the activity is in the triangle of trees ~~between~~ with the roost/nest holes.

1200. There are 2 ub ♂♂ in the old nest tree chasing each other. The 2 1st yr ♂♂ are pretty much confining their activities to last yr's nest tree and the upper Valley Oak. My guess is 12-14 birds inc 2 ub ♂♂ and 8-10 ub ♀♀. Still no sign of either former breeder. There is definite dominance between the 2 1st yr ♂♂, I think with ♂582 > ♂583.

1210. Leaving for now. Looks like both parents are gone and that a new ♀ is needed. A couple ♂♂ are hoping to move in as well. So far it seems like the 2 1st yr ♂♂ and a coalition of ♀♀ (2 and perhaps a trio even) are in the lead, but there's much fighting still to go

1600. Still some activity, but things seem to have quieted down pretty much. While setting nets there were 5-6 birds chasing around.

1700. Caught 2 ub ♂♂ in the net - now ♂644 and 645. By the time we let them go at 1730 things were quiet.

1800. Took the nets down. Things very quiet up here. Either it's all over or everyone went home for the late afternoon.

14 April 855. Watching. 1-2 birds here; things calm.

904. Now a couple of ♀ intruders. ♂582 here, chasing the intruding ♀♀. Looks like 2 ub ♀♀ have won and have moved in.

Melanerpes formicivorus

Lambert Hastings Reservation

(14 April) 914. ♂582 mounted one of the ♀♀; he may even have come close to a successful copulation, but after 4-5s it was interrupted by an intruder, which the ♂ chased.

940. Nets up. Still no sign of ♂583!

1000. Intruder: ♂ M/Blk-OB Blk/Or-Blk #566 from A1, chased by ♂582

1008. At least 2 ♀ intruders suddenly came in.

1012. Up in the far VO were 3 ♀♀ and the ♂; there is at least some possibility that 3 unb ♀♀ have (are) moved in here!

1015. Leaving for now. Still some intruders. The 3 (4?) birds are mostly just hanging out together.

While checking on our way out, it turned out we had a bird in the net: now ♀646 (another apparent (1st yr bird!).

1215. Caught ♂582 in the net. Taking nets down.

1820. Back for roosting.

1900. 3 birds ended up coming, they hung around in the upper VO for ~10m, and then right at the last minute 2 of them (at least) shot down the hill to some totally unknown destination! So no hope of an ambush for now!

22 April 1730. On arrival we flushed a single unb ♀ from the area; she flew down over toward the ridge where everyone often hangs out and stayed there for several minutes with an unbanded ♂! Then we watched up at the main area, where again a pair of unbanded birds came and hung out together!

1750. Going to check around (both birds have left).

1800. ♀ub back in the main area by herself. 1805. Just flew way off toward (and as far as) South Ravine! Leaving.

Melanerpes formicivorus

Lambert — Hastings Reservation

(22 April) This place is a ~~total~~ mess at the moment! (Janet claimed to see an ub ♀ and a banded ♂ here last night, but...?

Janet clarifies that she definitely saw a banded ♂ here (along with an ub ♀), the bands of whom were ♂ Red/LP?/; sounds like ♂583. ~~Where~~ Where are they today?

26 April 805. Watching.

820. Right away, a single unbanded ♀ showed up and hung around for several minutes. For a short time she was joined by a ♂, also unbanded. But at least 2 other ♂♂ - both also unbanded - came by for a short time or were seen nearby; neither of these ~~♂♂~~ confronted the others.

840. A chase between 2 ♂♂, 1 of whom was ~~apparently both~~ unbanded.

850. Well. Suddenly there was an ub ♀ in the '80 nest tree and 2 ♂♂ in the old nest tree, one of whom was ♂or/Da-or#284! Then one of the ♂♂ (the other one) left, ♂284 went to the top of the tree, and a 3rd bird, a ♀ (don't know if she was the same one as I'd seen a minute earlier, but it seems likely) was at the top with ♂284. Then everyone trickled off. So much for my earlier hypotheses!

920. Noone returned. Clearly I still don't know what's happening here. The ♀ has been replaced for sure, but what's up with the ♂♂ is still pretty much up for grabs.

27 April 1515. Watching.

1600. Well, the action is not here today. Leaving.

30 April I clearly don't know what's up with the ♂♂ here, but it is time to make a few changes:

Purge: ♀632. Not seen since she was caught

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Lambert Hastings Reservation

(30 April) on 22 October 1980, but presumably (?) around until the time of the Revolution to replace her on 13 April. But, to be a little more realistic, I'll give her a 2 month leeway: Disappeared about 13 March ± 1 month.

♂581. Last seen 1 December 1980, gone by 13 April → Disappeared about 7 Feb. ± 2 months

Add: ♀ unbanded. Presumably moved here during the Revolution on ~13 April.

In fact, this group continues to present one of the biggest problems in the whole study area. Stay tuned for more speculation as time goes on...

2 May 630. Watching. Something up here: 5 birds in the '80 nest tree when I came up!

640. A fairly good revolution! Looks like it primarily involves ♂♂ this time; there are numerous ub ♂♂ here plus at least 2 banded ones; also ≥ 1 ub ♀ - presumably the new resident. About 10 birds altogether, I'd say.

700. Looks good for ♂♂ BP/M #583. He seems fairly well in charge, along with at least 1 other (banded?) ♂. An unbanded ♀ seems to have that position with no problem. Things are much quieter already (as the fog rolls in).

730. I'm pretty sure that ♂♂ LB-Blk/M #582 is here also, but he's definitely maintaining a low profile compared to ♂583. There are only a couple of intruders left now.

740. Even though it's the ♂(♂) who are doing the chasing, it's the ♀ who sits around drumming and Cearricking!

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Lambert — Hastings Reservation

(2 May) 750. That's who it is: 0582. All in all, it looks pretty much like it did on 13 April again: the 2 1st yr ♂♂ along with (now only 1) unbanded ♀. One has to wonder what's up with old 0284! There's no sign of him at the moment!

800. Leaving. Still chasing, Carricks, etc., but only 2-3 intruders. Things pretty calm.

13 May 1935. Watched roosting here, but after checking the holes (at 1920) I didn't see or hear a thing!

26 May 1550. Watching. Noone in any holes.

1635. A bird flew up the hill and landed near me, then flew off toward Keep Out. He/she did not look at ease. The bands were ? BP-? / M ; possibly this is 0583 from here, but I doubt it. Leaving for now. This place is quite dead.

3 June 900. No sign of life up here in passing.

13 June 1345. " " " " " " " " . Over in the side area (toward Fanny Arnold above Keep Out) was a banded ♀ (♀ WN/OR ...?) but otherwise zilch.

1 July 830. Walked by here, seeing nothing except a bird up in a perch tree above the main area who flew over toward Keep Out.

21 July 820. Nothing seen here in passing.

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Fanny Arnold — Hastings Reservation

26 April 1025-1050. After flushing a Starling out of A3's old nest hole here on the hillside just over the HNHR-Lambert boundary I sat and watched, only to discover that at least 2 and maybe 3 AW's are hanging out here - eating acorns, sitting, even chasing an intruder - in short, acting every bit as though they'd made a bonifide group here. This area does, in fact, have some storage facilities which were used by A3 back in 1974-75 and did have some acorns last winter (hopefully I wrote the date in my notes somewhere!) Furthermore, I have previously followed birds here, most of whom were always unbanded, with an occasional (apparent) visitor from a nearby group (e.g. Lambert) showing up. Watching now I again did not see anyone who was banded, though I may or may not have seen everyone (I don't think I saw a ♀)! In any case, my guess at the moment is that there is a group here (here they are again - wahaing to each other!) and that we better start paying some attention to it! (The group appears to use the hillside here, spilling over (extensively?) onto Lambert's. Since A3's old granary no longer exists, however, this group gets "new territory" status. In particular, I can definitely envision such a group existing concurrently with old A3, with the latter simply avoiding this edge.)

see 12 Jan. general M.f. notes

1055. The Starling just landed at the hole and was decisively shagged off by one of the Woodpeckers!

Not only are the birds here acting territorial, but there are still acorns remaining in the (small

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Fanny Arnold — Hastings Reservation

(26 April) but definite) granary.

I climbed up to the hole and cleared out the crap brought by the Starling (including 4 eggs) before leaving.

27 April 1503. A ♂ (ub?) is at the edge of the hole in the old nest tree at A3 next to the hole that was used several times (and the one I cleaned out hier).

30 April Watched roosting here. It was mostly an incomprehensible mess, ~~be~~ due mainly to an intruder being chased from holes until well after bedtime. In the end, though, I did figure out where they roosted (not in the old nest tree - over in the smaller Valley Oak by the granary) but I don't know how many birds were (rightfully) here - most likely 3, but possibly 2 or even 4.

2 May 530. Ambushed this morning, nabbing a pair who are now #651 (♂) and ♀652. The ♀ had an extented abdomen and looked very ready to lay an egg - hopefully they didn't already have a nest in this hole!

I presume, at least for the time being, that these 2 constitute the entire group. I'm also going to guess that the group was founded back about last October, since they were certainly here in January and probably had been all winter (but not much prior to that!)

4 May 1500. 1 bird flushed from the limb with the 2 holes in the big Valley oak. If they do have a nest here, it ought to be in one of the two.

5 May 1330. Bird in the hole next to the old A3 nest hole: a nest for sure

1500. Went and opened up the hole; no eggs (!) However,

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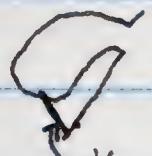
Fanny Arnold — Hastings Reservation

(5 May) the bird was clearly working on the hole, since it's really quite shallow. In fact, my cut was way too deep, so be prepared to take extraordinary precautions opening it up again with something inside (unless they deepen it, to not open it for eggs!)



7 May 1400. Noone in any holes this time.

13 May 1905. Bird in the hole I opened over in the large Valley Oak.

17 May 1130. Checked the hole with the peeper since there was a bird looking out, but still nothing as best I could tell.

21 May 1520. A bird in the hole again, but still nothing in the hole (using the peeper).

26 May 1530. For once, there wasn't a bird in the hole, and sure enough, they have 1 egg!

4 June 1900. 4 eggs now, incubated.

10 June 700. Bird in the hole, presumably incubating.

13 June 1415. Noone in the hole, but there are ≥2 babies squeecking inside.

1 July 830. Walked by and heard baby(ies) squeeing from inside.

4 July 1030. Opened the hole, which is several inches deeper than in May (it's now ok to open it!) and banded the 2 babies as #705 and 706.

21 July 830. Flushed 2 birds from here; also checked the stores and actually found several (>25) good-looking acorns still here, so they definitely are not out entirely.

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Fanny Arnold Nest Record	Hastings Reservation
26 May 1530	1 egg
4 June 1900	4 eggs
13 June 1415	Babies
4 July 1030	2 babies, bled & banded

	① 705	② 706
4 July 1030	80.2 (96)	81.1 (92)
Devel. sequence (crown)	1	2

Walter D. Koenig

Melanerpes formicivorus

Upper Arnold 2 — Hastings Reservation

9 January
1420. Watching from hide.
1440. ① ♀ M/P-DS(a) #591 down in the Valley Oak roost tree.
1500. ♀591 up in the granary shagging some Dickey-bird out.
1505. A ♂ here also, but he split before I could identify him.
1515. Leaving. Need another watch, preferably earlier in the day.

12 January
1350. Watching.
1407. In the canyon eating an acorn in a Black Oak is ① ♀ WH-Dr/M #621. (she's too far away to see well, but that's my guess) For a moment at least there were 2 ♂♂ in the tree with her. A 2nd ♀ there as well: ♀ M #591. Probably the whole group! ③ ♂ M/DB-? #590. All 4 birds right together.
1445. After staring at the birds for ½ hr, the dominant ♂ finally moved. My look at him wasn't great, but he was banded and did indeed appear to be ♂ DB/LB-O #123.
1450. Leaving. Everyone ok here.

2 February
1600. Counted stores: Main tree: 1335 } 2205.
2° tree: 870 }
Also saw ♀591 while counting, and took a sample of 50 acorns for my own uses.

7 April
1440. Counted stores: Main tree: 1535 } 2570
2° tree 1035 }
So far this is the only group that seems to have improved its storage situation since February. And they really are in good shape: they litterally have acorns stuck everywhere! I did not see anyone ~~a~~ while here, however.

26 April
Noone seen in any holes in passing.

27 April
1500. ♀ M/Or...? Or/Or-.? #594 over on back side of A1 (toward UA2).

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Upper Arnold 2 Hastings Reservation

(27 April) Otherwise, noone seen and noone in any holes here.

30 April Passed by here this evening and flushed out a ♀ from the hole in the 2° granary who, as best I could tell, was ♀ Red/Red ♂ #567 from A1! Noone else in any holes, however.

1 May Bird in lower hole in last year's nest tree late this afternoon.

2 May 615. Noone in any holes this time.

4 May 1500. Bird (♂) in lower hole again: a nest for sure.

5 May 1400. ♂ in hole. Opened it up: they've got 5 fresh eggs.

17 May 1115. Checked the hole - 3 babies and 2 unhatched eggs.

5 June 1530. Banded and bled the 3 babies, who all look fine, as #681 - 683.

15 June 1615. Babies looking far out of the nest hole - about ready to go!

Counted stores: Main tree: 885
2° tree: 1092
} 1977.

Still doing incredibly well.

21 July 800. Nobody seen here in passing.

16 August 1100. There are lots of acorns remaining here. These birds definitely aren't going to run out.

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Upper Arnold 2

5 May 1400

Hastings Reservation

5 eggs, fresh: ① 25.0 × 18.0
② 24.8 × 18.7 ③ 25.0 × 19.0
④ 25.4 × 18.5 ⑤ 25.6 × 18.9

17 May 1115

3 babies and 2 unhatched eggs
Egg #1 - developed into large embryo but didn't hatch
Egg #3 - infertile

	#681 ① Or-Lg	#682 ② R-W	③ #683
17 May 1115	14.9	17.4	10.1
5 June 1530	89.1 (85)	81.0 (90)	83.1 (77)
Devel. sequence (crown)	1	2	3

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Lower Arnold 2 — Hastings Reservation

7 January 1445. Watching from hide. Still some acorns stored here.

1454. Two birds here- 1 probably ♂611 (definitely banded).

1500. An unbanded ♂ eating an acorn in the forest here.

1520. ♂ub still here; harrit-cutted awhile, but noone came by to see him.

1525. A 2nd ♂, possibly a 3rd bird here.

1530. The ub ♂ and ♂ M/Dc-Lc #611 here together now. The ub ♂ is definitely part of the group here.

1600. Leaving (a Cooper's Hawk is sitting here making things difficult). Definitely time to ambush here for the new ♂. I'm not sure what's up with the ♀, but she sure isn't hanging around today.

12 January 1345. After watching an unbanded ♀ hawking from the large Valley Oak at the top of UA2 for 10m or so, she flew down to the granary here. I watched her there for >5m, looking a little uncertain, but getting ½ an acorn to eat and eating it while ♂ M/- #611 was in the tree with her. I wouldn't be at all surprised to find her as a replacement for ♀507.

2 February 1515. Counted stores: Outer Blue Oak: ~~150~~ 83.
Inner areas: 33

Definitely something, but it's still hard to understand why these birds are staying here. But they are- I flushed 2 birds when I arrived.

I also squeezed out a sample of 10 stored acorns from the granary.

17 February Ron having confirmed the presence of both an unbanded ♂ and ♀ here, we ambushed this morning at the rear (Valley Oak) nest hole, getting the young ♂ (♂611) and the new ♀, who

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Lower Arnold 2 — Hastings Reservation

(17 February) has all the characteristics suggesting a definite 1st yr bird (!) She was banded as ♀637. Meanwhile, there was already some activity in the area involving at least 2 or 3 other unbanded birds (one of whom was probably the new unbanded ♂, who roosted in the out tree in the higher roost hole). When released, the ♀ immediately flew to the granary and began chasing out the other birds.

Also I cleaned out the old nest hole in the Blue Oak (actually yesterday) which turned out to be full (at least several inches worth) of wet wood chips. See back for details.

18 February 1715. Added some dry wood chips into the old nest hole as I was going up to set an ambush at the upper hole, hopefully to nab the unbanded ♂.

1750. All 3 birds here. ♂♀ LP/BIR #637 seen.

19 February 1100. Almost nabbed the ♂ again this morning, but he slipped out somehow (a full moon did not help).

Purge: ♂610. Last seen 11 Sept. 1980 by Ron; gone and replaced by 29 Nov (my watch) ⇒ Disappeared about 20 Oct. 1980 ± 1 month

Add: ♂846 (still unbanded). Moved here ~20 Oct. 1980.

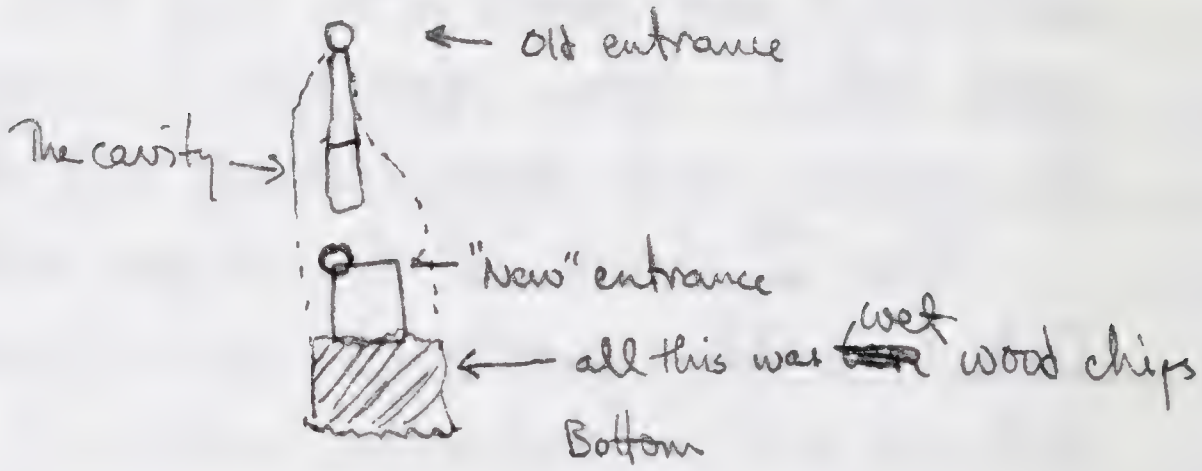
Purge: ♀507. Last seen at LA2 on 11 Sept. (Ron); seen by me at A1 on 22 Oct. Probably gone by 29 Nov., definitely gone by 7 Jan. 81 ⇒ Disappeared ~ 10 Nov. 1980, ± 2 wks replaced by ♀845 (now ♀637).

An interesting group - now has 2 unrelated ♂♂ both in a position to breed along with a new ♀ (1st-yr!)

17 February

nest

LA2 / hole



Melanerpes formicivorus

Lower Arnold 2 — Hastings Reservation

7 April — 450. There are still stores here - in fact, I counted 100 in the front tree and 16 in back for a total of 116, which means they still must have a couple of hundred anyway. Apparently these birds (along with UA2) have managed to make it through the winter without hardly resorting to their stores at all!

26 April — Flushed 2 birds in passing, but noone in any holes.

30 April — Many watched roosting here tonight, noting 3 birds, 2 of whom roosted in the high hole in the burnt Blue Oak, the 3rd of whom may have roosted in the back hole. Meanwhile, a Woodrat has apparently taken over the low hole in the Blue Oak!

1 May — Opened the low hole this evening, and found no clear sign of woodrat occupancy. At least he hasn't moved in yet!

7 May — Noone in any holes here in passing.

22 May — Ron reports that they have a nest in the low hole in the Blue Oak, and that the babies are just hatching!

3 June — 830. Checked and put a band on the 3 babies here. These birds do still have a few acorns in the tree!

13 June — 1430. Checked the nest here, finding 2 babies (who I weighed). ~~Although~~ Although ~23d old, these kids are sadly underweight, and I decided to wait a few more days before banding them.

1515. Back to watch from the hide.

1609. ♀ LP/Blk #637 in the area.

1650. Back in the forest is ♂ -wh/ca-wh #611. Nobody's come to the nest yet, but I don't doubt that only the pair is here. Leaving.

Melanerpes formicivorus

Lower Arnold 2 Nest Record — Hastings Reservation

22 May

3 June 830 — 3 babies

	#697 ① Or-LG	#698 ② Bk-Yel	③
3 June 830	37.6	34.9	23.8
13 June 1430	49.9 (55)	56.3 (43)	–
15 June ~~1630~~ 1530	57.8 (60)	57.3 (52)	
Devel. sequence	1	2	

Melanerpes formicivorus

Lower Arnold 2 — Hastings Reservation

15 June 1530. Banded and bled the 2 babies here (who are still amazingly thin but could make it) as #697 and 698.
Also counted stores: somehow, they still have at least 150 acorns in the outside tree here.

1 July 800. Opened the nest hole – there's a lot of dried crap inside, but no sign of the babies, so I presume they fledged.

2 August Purge: ♂ unbanded: Last seen 7 April, gone by 14 May → Disappeared about 26 April ± 2 wks.

16 August 1000. There are, incredibly enough, a few acorns left here.

Melanerpes formicivorus

Bianca Hastings Reservation

4 February 1145. There are at least 4-5 birds hanging out on the knoll here. Since there aren't any stores, I presume them to mostly be Black Oak birds. However - 1 bird that I got a decent look at was an unbanded ♀! So I better get up here with the spotting scope to figure out what's up.

7 April 1500. Over on the knoll area are several birds again, including at least 1 ub ♀. Some of these birds appear to be flying in from across South Ravine, but nonetheless there could really be birds living here for all I know.

1515. Some of the riff-raff here is a real pack of 4 birds - at least 2-3 of whom are ~~♂♂~~ banded ♂♂ - moving together very tightly. Presumably these are Black Oak birds, though I haven't actually been able to identify anyone yet.

1525. 1 is ♂ Yellow/Yellow #102 from Black Oak.

1527. I see 3 birds here now: 2♂♂ and a ♀.

1530. Some action! All of a sudden 4 birds were here, moving around. I saw ♂Blk/Or #426, also ♂Wh/Yel #102 and - Red/M (♀) 427. ♂426 mounted a bird who was a ♀ but was not for sure ♀427 (though she most likely was, of course). He flapped on her back for a couple of seconds but the others were right there and this room specifically intervened the movement of everyone else shortened the whole business. Everyone then moved around some more and then abruptly all 4 flew off back toward Black Oak.

By the way, although I never got a good look at the 4th bird I did see a ♂Or/Blk! with them who almost certainly -

Melanerpes formicivorus

Bianca Hastings Reservation

(7 April) now that I've seen the others - would have to have been 0321.

26 April Noone over in this area today in passing.

3 June Noone in any holes here.

16 August 945. A bird flushed from the granary area, but there's no sign of stores or whatnot here yet.